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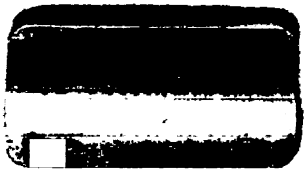

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TRANSACTIONS

OF THE

BOMBAY GEOGRAPHICAL SOCIETY,

FROM MAY TO AUGUST 1840.

EDITED BY THE SECRETARY.

VOLUME IV.

CALCUTTA:

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CONTENTS.

Page.

ART. I.—Extract from Major Jervis' Statistical and Geographical Memoir of the Western Coast of India.—Section, Revenue and Land Tenures... 1

APPENDIX.

No. I.—Treaties made between the Portuguese Viceroy of Goa and the Mahrattas or Peshwa... 129

II.—Tuhnama or Treaty of Adjustment entered into between Ballajee Vishwunath Peshwa, and Seedee Yakoot Khan of Jungeera: on the conclusion of hostilities, A. D. 1732... 131

III.—Authentic account of the Land Revenue, Sayer or variable Imposts; Land and Sea Customs of the North and South Konkun, (9755 Sq. miles) under British administration, for a period of 15 years from the date of its first acquisition by conquest... ... 137

IV.—The Kushelee Grant, dated A. D. 1191, June 20th... 138

ART. II —Census of the Population of the Northern Konkun... 145

ART. I.—Extract from late Colonel Lambton's Notices of Malabar.—Communicated by Major T. B. Jervis... 1

ART. II.—Descriptive and Geographical Account of the Nilgiri Hills. By Messrs Fox and Turnbull.—Communicated by Major T. B. Jervis... 9

ART. III —Descriptive and Geographical account of the Province of Malabar. By Captains B. S. Ward and Connor, Madras Survey Establishment.—Communicated by the Right Honorable Sir F. Adam, Governor of Madras, to Major T. B. Jervis... 33

Kavoy Talook... 39

Cheracul Talook of North Malabar... 45

Kotium Talook... 49

Kartanad Talook... 54

Digitized by Google

Page.

Wynaud Talook... 58

Kurambanaud Talook... 69

Calicut Talook... 74

Shernaud Talook... 80

Ernaud Talook... 83

Bettadanaud Talook... 90

Wulavanaud Talook... 94

Neddunganaud Talook..... 102

Paulghaut Talook..... 106

Statement shewing the Quantity, Value, and Duty of Articles Imported and Exported to and from Calicut and Tellicherry from May, 1828, to April, 1829... 118

ART. IV.—Statistical Tables of the Population and Agriculture of the Ceded Districts of Madras —Communicated to Major T. B. Jervis by the late Principal Collector, Mr Robertson... 125

ART. V.—Statement shewing the works of Irrigation in the Bellary Division of the Ceded Districts, the amount of Garden and Wet cultivation under the same in Fusly 1235, and the actual sums disbursed for Repairs since the Cession, or from Fusly 1210 to 31st December, 1236.... 127

Memoir on the Origin, Progress, and Present State, of the Surveys in India, by Captain Thomas Best Jervis... 133

Address delivered at the Geographical Section of the British Association, Newcastle-on-Tyne,—Friday, August 26th, 1838. Descriptive of the State, Progress, and Prospects, of the various Surveys, and other Scientific inquiries, instituted by the Honorable East India Company throughout Asia; with a prefatory sketch of the Principles and Requirements of Geography: by Major T. B. Jervis... 155

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PROCEEDINGS

OF THE

BOMBAY GEOGRAPHICAL SOCIETY.

MAY, 1840.

I.—*Historical and Geographical Account of the Western Coast of India.—Revenue and Land Tenures.*—By Major T. B. Jervis, of the Bombay Engineers, F. R. S.

"The love of things ancient doth argue staidness; but levity and want of experience maketh apt unto innovations. That which wisdom did first begin and hath been with good men long continued, challengeth allowance of them that succeed, although, it plead for itself nothing. That which is new, if it promise not much, doth fear condemnation before trial; until trial, no man doth acquit or trust it, what good soever it pretend and promise: so that in this kind there are few things known to be good, till such time as they grow to be ancient." Hooker's Ecclesiastical Polity, vol. 2, page 27.

The amount, collection, and appropriation of the Revenues of every state is as intimately connected with the individual welfare of the people, as the stability and improvement of the Government. The extent of happiness or misery attendant on an equitable system of finance, or the introduction and continuance of an injudicious or oppressive assessment, is rarely understood until it has been long in operation, and those effects which are referable to remote causes, but little appreciated, unless fraught with some immediate danger or distress, in which case it is frequently impracticable to trace the progress of any evil to its true source: hence it becomes obligatory to propose a remedy which has this singular disadvantage, that it has yet to be tried, and is therefore inexpedient and doubtful in proportion as the origin of the evil to be obviated is remote and uncertain.

The foregoing observation arises out of the consideration of Indian Revenue, which is either depreciated, or diminished, to an amount

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that bespeaks little for the financial wisdom of the Hindus or Mahomedans, or for those legislative measures which have paralyzed the energies of the people, and brought them to such a condition that they can pay no more, without sacrificing what is indispensable to their very subsistence,—a condition of such complicated embarassment as calls for immediate relief.

The revenues of the state in India being chiefly drawn from the land, it might be supposed, since the mass of the people follow agriculture in a greater or less degree, that the taxes would bear generally and equitably on every individual member of the community. The principle of the Hindu law allotted the far greater burthen to the middling and inferior classes ; the Mahomedans wrung from the people as much as they could take, with certain reservations in favor of those of like persuasion, leaving every individual to settle with their agents for as much beyond that amount, as these agents thought fit to demand : this gave rise to a new branch of revenue, which was very commodiously levied under the comprehensive word *sayer*. The land revenue, the sayer, with the imposts on commerce by land and by water, compose the general amount of taxes without any express or even intentional view to the expences of the Government. The objects of the sayer being indefinite and variable throughout all parts of India, the items and proceeds have undergone modification in accordance with the spirit of the ruling power, and present with other absurdities of Indian finance, a plain and ready solution of the motives to that chicanery, which runs through every department and political measure of native governments. In its train we may perceive the corruption, venality, mendacity, and suspicion, which operate to the destruction of every honorable and virtuous principle. To over-reach and deceive the members of Government, was always considered as inherent in the character of the subject, as it was known to be habitual to the officers appointed to the realization of the revenue, or consistent with the policy mutually observed between all native princes and their dependents.

Of the four heads under which revenue was collected, the first, or assessment on land, was the amount exacted by the state ; the second, or sayer, by the zumeendars, patels, and officers deputed to administer the general affairs of the villages, districts, provinces, or principality : the third and fourth, were usually assigned to some favorite, relative, or dependent, of the ruling authorities, and were therefore liable to great abuses. If there were no other evidence to this effect, the appropriation of the second item of Revenue by the

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zumeendars and revenue agents of the former native governments would establish the proprietory right of the sovereign to the soil from which the principal item was derived, for these officers in the first instance, acquired their rights in virtue of their masters; and yet, when the Mharattas obtained the sovereignty, the prince observing that the people paid a great deal to the revenue and district officers, over and above the fixed land revenue, required the full amount of land revenue and sayer to be brought into the accounts of the public resources. The same rule of exaction however was persevered in by the subordinate agents, in a new form, as *Babtees*, and other imposts; in plain English, douceurs, official presents, first-fruits, and private cesses, required for the temporary managers and farmers of districts, and in this predicament, overwhelmed with the most impolitic and vexatious burthens, the late Peshwa's dominions came into the hands of the British Government, partly as we have already seen, by cessions, but much more as acquisitions made during the war with the last prince who exercised that office.

We have seen the Revenue collected under its first simple form; secondly, the increased taxation, by the addition of sayer, or of variable imposts; thirdly the land revenue, sayer, and customs further increased by the imposition of *Babtees*, *Chur*, and so forth, vexatious cesses without any fixed definition, commuted at will, for money or service.

In this were intermixed a thousand questions of right dependent on the first infringement of the sovereign's demands, and the ryot's or cultivator's dues: the village, district, or provincial officers, were involved in consequence, in the most complicated disputes for their share of the sayer, which had either been overlooked, or winked at, in the emergencies of their bounden superiors. Thus in the partition of property by descent according to Hindu, or Mahometan law, fraud and falsehood became necessary to the possession, maintenance, or security, of claims which had no real foundation either in justice or sound policy. The ingenuity of the natives has clothed this subject in all the seeming legality and plausibility of a substantial and authorized inheritance, and even disposed many of our most talented countrymen to award to them the indefeasible and original property in the soil, than which there can be nothing more inconsistent or incorrect; for if we suppose any proprietory right to vest in the zumeendars, or superior landlords, it must resolve itself finally into the proprietory right of the highest and most powerful landlord, and that the Sovereign.

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It appears from all the ancient grants of land which have yet been discovered, that the Sea customs and transit duties came also under the one head of sayer, and as such, were recognized by the several members of the Bengal Government, in their examination of existing native records, at the time the Marquis Cornwallis suggested his memorable reforms. Among other curious documents which fell into my hands, were two in the possession of a Purbhoo family in the Ushtummee district, containing an account of the revenues drawn by the Moghul Government from the Tul Konkun*, which is explained by the best informed natives to mean all the tract from Duman to its southern boundary, or the Savitree river; it is stated to be eleven lacs of luhree, each of one-third of a rupee. At this rate upwards of 3½ lacs of rupees were drawn from the land alone, and, it being the practice at that time, to levy at most only one-tenth†, we may judge how much the revenue has fallen off by the addition of the sayer branch. According to the official returns, the collective amount of land revenue of the northern and southern zillahs, Salsette, Bombay, and islands, was rupees 17,89,200, in 1820-21, and this levied in the acknowledged proportion of one-third, in many parts even one-half, on a much greater surface of land than formerly; allowing for the revenue of Angria's country and the deductions for territory acquired from the Jowar chieftain, the tenth of the produce would at the former date give thirty-five lacs, which is just about equivalent to twice the land revenue now derived. Nay, in strictness it should properly shew a far greater deficiency, for those productive diluvial tracts which have been recovered from the sea and rivers by the natural and gradual depositions of silt and loam, accumulated in the course of the last 400 years. In fact, the far greater produce of those districts of Tul Konkun which have recently been removed from the charge of the Collector of the southern, to that of the northern zillah, is obtained from such diluvial deposits, and the progress of these appears to have been going on in the Konkun and Malabar, as in Goojrat, Kattiwar, and Kuch, with much greater rapidity, during the last 200 years, than previously:

* I have found an exact explanation of this geographical division in the treaty between Seevajee and the Emperor Shah Jehan's viceroy in 1632, that he should be allowed the whole of Tul Konkun, that is the districts dependant on Dowlutabad or Ahmednuggur, as holding of the Emperor, if he would relinquish all claim to the territory dependent on that fortress above the ghauts, and desist from rebellion. It could not mean the Dhabol Soobha, over which he had no authority.

† This will be clearly proved in the sequel.

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and by reason of the vellard, or causeway, constructed between the Islands of Bombay and Salsette, in 1801, will doubtless be found, on examination, to have progressed unusually quickly all along those parts of the coast, which form the outline of the great sound in which these islands are situated. It is more particularly observable on both sides of the Amba, or Nagotna river, the west coast of the Khyrunee muhal; Oorun or Caranja Island, now almost completely joined to the main land; Troomba or Trombay, which is also separated now by a very shallow channel, and the inundated tracts on the west side of the Island of Salsette. In the large maps of the Okliseer, Broach, and Surat Collectorates, the boundary lines of the Nurbudda, Taptee, and other streams are distinctly seen to have extended far over those fertile plains, which now support a rich and industrious population.

In Kattiwar and Kuch also, I noted the progressive retreat of the sea which has left extensive wastes and morasses, strongly impregnated with salts and deleterious substances, that may still for a long time retard its occupation by the husbandman: but we are warranted by the similar appearance and character of the soil in many other parts of Goojrat and Kattiwar, in concluding that the same difficulties stood in the way of the first tenants in remote ages, which have nevertheless been gradually surmounted, and the lands brought, even now, into some state of productiveness. The soil about Kaira, and on either side of the Saburmuttee, for a great distance from the gulph of Cambay, is extremely poor at great depths, and when analyzed, proves the existence of salts and other matters, indicative of its having been, some centuries ago, much in the same state as we now find the great Run which divides Goojrat from Kutch. In the infancy of society, there may have been a far larger portion of the earth occupied by water, which either by physical causes removed from our apprehension, or adventitious circumstances dependent on the disintegration of rocks and forests, perhaps, in no inconsiderable degree on the industry and ingenuity of man, have been filled up and confined to their present narrow limits, and this, most happily, in a measure correspondent to that great increase of the human species which obtains under the growth and extension of civilization and security. Even in the memory of many naval officers, still living, we may find this work to have advanced considerably on all the line of coast: where any such cause has effected a change, as in the harbour of Bombay, we might be disposed to assign it exclusively to these circumstances; but on the open coast of

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Malabar, no such reason can be averred, nor can it be imagined that any thing short of an earthquake should so have uplifted the vast level tract of the Run, as to occasion the Bunas and Loonee rivers to be lost altogether, even far inland. The first step appears to be the accumulation of banks of sand at the mouth of the rivers, or bays, by the mutual and conflicting influence of currents or tides, and strong winds from the southwest. The bars being thus begun, accommodate themselves imperceptibly to the outline of the nearest rocks, till they have formed a mass, more than equivalent to resist the joint force of the ebb tide and the entire depth of the stream: the debris of the hills soon fill up the lateral swamps and boggy tracts, by the deposition of the mud and silt which is brought down by the periodical rains, year after year, and kept suspended in the water, till the ebb tide, gradually more and more straightened in its velocity, where the depth is diminished, resigns the earthy matter to be formed in a few seasons, into fields, and habitable domains of the greatest value.

These facts concur to prove, that in all that diluvial tract which was formerly designated Tul Konkun, there was much less land in cultivation, than at present, and that the cultivators could afford in reality to pay more than they do now, although the Government share of the produce was but one-tenth, for the value and fruits of the soil being enhanced, in proportion as the labourer could afford to lay out his skill and capital in bringing that little forward, the Government found their interest in the receipt of the land revenue alone, and had this system been followed up, not all the artifice and priestcraft of the Brahmins, nor all the cunning of the harpies, who under the wing of the Mahomedan and Hindu conquerors, successively directed the financial affairs of their governments, could have wrung from the people the unjustifiable cesses, which have so demoralized and disgraced both them and their oppressors. They would then have acquired sufficient political strength to withstand those demands, which have been complied with, entirely through the pusillanimity of a wretched and impoverished condition.

The total area* of the territory now under consideration is 13,265

* The area of the North Konkun, prior to 1830, was 4,524 square miles; the area of the south Konkun, 5,232; the Portuguese territories, 1,402 square miles including the Provincias del Norte de Damao: the Jowar raja's country, 517; Angria's, 211; the Hubshee's, 279; the Bowra chief's, 157; and Sawunt warree, 944 square miles. These areas are all computed with the greatest possible care from an exact survey and boundaries, executed under my orders.

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square miles; that is, 84,89,600 English acres*, of which there are, at present, 9,08,691 acres under cultivation, and probably 19,21,175 acres adapted to tillage, including all that has been abandoned or neglected from former times; the amount of unproductive land, rocks, rivers, and insalubrious forests, forms about two-thirds of the whole of that which is cultivated: the proportion producing rice may be 5,14,508 acres, the *bhurrur*, *wurkus*, and *doongur* or hill land, on which a variety of small corn is raised, may be estimated at 3,94,183 acres; hence, allowing for the rice land, at a medium, eight and a half rupees per acre, and for the hill land, rupees three and two annas per acre English, it is perfectly clear that the soil has greatly deteriorated in fruitfulness, as well as in value†; and that what has been gained to the state in the very objectionable shape of sayer, and other indefinite imposts, setting aside those payments and cesses which are perpetuated to the persons and officers of the district and village officers, is far less than might have been derived from a just and extremely light assessment on the land itself. Let it be inquired how far the very small amount of

* The following is a more detailed specification of the extent of arable, available and unproductive land, which will be found in the 1st vol. of my Statistical Tables. Rice lands, North Konkun, 3,27,093 beegahs; Kolwun, Jowar raja's, 4,309 beegahs; Angria's, 27,198 beegahs; Hubshee's, 13,266; Bowrekur's, 2,147; Sawunt warree, 13,872; South Konkun, 1,30,966; Goa and Duman, 20,624;—Total Rice land, 5,39,475 beegahs; or 5,14,508 English statute acres. So also the beegahs of Hill land or wurkus and bhurrur are in each, North Konkun, 1,37,013; Kolwun, 15,654; Angria's, 2,892; Hubshee's, 6,667; Bowrekur's, 5,782; Warree 34,951; Goa and Duman 51,963; the Southern Konkun zillah, 1,58,390; Total 4,13,312 beegahs of wurkus or bhurrur land, or 3,94,183 English statute acres, including all land in actual cultivation during any one year, for there is actually a vast deal more bhurur or wurkus land cleared, on which, by alternate fallows, a crop is raised every third, fifth, or seventh year; but such fallow, or unoccupied land, does not pay revenue. This may give a faint idea of a poorly cultivated district which cannot boast of so much land under tillage as Sweden, the least productive of all Europe, for an equal extent, since there the lands under culture equal one-eighth of the entire area, rocks, rivers and forests included.

† The actual land rental on an average of 15 years for the North and South Konkun, all extra cesses inclusive, gives on 5,14,508 statute acres rice land at 3 Rs. 8 anas, ... Rupees 18,00,778

And on 3,94,183 wurkus, or arable hill land, at 1 R. 4 anas, ... 4,49,896

Total average land revenue about 231 Rupees per square mile of 640 statute acres, ... 22,50,674

Which, supposing the former or rice land at a medium valuation, capable of yielding 8¾ Rs., and the latter 3 Rs. 2 anas would give an outturn of produce in the ratio of five to two of the foregoing.

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oppressive Mahratta exactions humanely and considerately remitted by the British Collectors, has conduced to stimulate industry, and remove that distress and uncertainty which attended their collection, and it will be well understood how infinitely more happy, secure and independent, the cultivator must have formerly been, and still might be, by reverting to the simple, judicious, and advantageous principle of a fair and moderate tax on a far greater quantity of land, than that which is now under tillage. By this means we should see the whole surface of the country, every little waste and nook, every patch and hill, crowned with nutritious and useful plants; and as the cultivations prospered, the population would increase also with it, providing industry, labour, and skill fully commensurate to the emergency. At this present, we may reckon, that for all the Konkun, British and Foreign, there is about £560,571 collected under every item*, a sorry amount, after all, for 13,265 square miles, which is equal to one-fifteenth of France, or rather less than one-ninth of England: and it is to be remembered, that this leaves the cultivator destitute of every thing but a precarious subsistence; so extremely precarious, that the least drought, irregularity of seasons, or calamity of whatever sort, such as the late murrain among the cattle, and the ravages of the spasmodic cholera, compels the Government to make enormous remissions, which though they would be severely felt by many, would be comparatively unimportant in a different state of things.

It may perhaps be thought that this is altogether speculative: has this indeed ever been the condition of the cultivator? Some will say also: has this actually been the original rule of taxation? It may be safely affirmed that it has, and that it is capable of the fullest proof both from what we now find subsisting, and what we can glean from the accounts of periods more and yet more remote. There are still a great variety of indirect attestations to the existence of a very different rule of management, which are best to be investigated and discussed by reference to History, and the analogous circumstances of other nations throughout Asia.

* The average revenue of the whole Konkun, north and south for 13 years including sayer, land revenue, land and sea customs (British) was Rs. 35,67,922. Bowra chief's rental, Rs. 33,276. Goa, Rs. 10,25,619. Duman, Rs. 2,79,477. Bombay land rental, 70,437. Angria's, 1,29,770. Hubshee's, 1,12,447. Warree chief, 3,66,760. Jowar chief, 12,000. The Veshalgurh and Sucheen's about Rs. 8000. Total Rs. 56,05,708, commuted at the rate of Rs. 10 to the pound = £560,571, or about Rs. 423 per square mile.

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It cannot be doubted, that the judicious administration of the revenues is a sacred but most difficult trust, while it cannot be deemed unimportant to provide for the necessities of the state, with the least measure of distress or uncertainty to the cultivator; but with the British Government it may be thought a far more obligatory duty, to give such an impulse to the moral feeling of the natives, through any, whatever medium, as may co-operate with freedom and education, to correct, encourage, and enrich the people, to bring them out of that gross and abject state of superstition, that wretchedness and ignorance, to which they have so long been subjected: to teach them from its own enlightened principles, the value of their individual powers and worth as men, tried indeed in this, but fitted for an immortal existence. The seeds of disease are often sown in the human frame in a secret and mysterious way, which baffles the physician's skill, but he diligently inquires for some clue to the origin of the malady, and is contented to argue and infer from that which he knows, and thus to provide, from analogous cases, a suitable remedy. In the body politic the same course will ensure success, in proportion as we search and examine into the best information we can collect, and proceed to the removal of abuses or evils, as they have been found to act destructively, or insidiously. The instruments by whom they were introduced, or the objects for which they were contemplated, instruct us how, and where, and with what precautions, to begin these measures: their effects warn us against all the consequences of particular and partial views, and at every step error is precluded, by weighing the present advantage against the advantages of past experience.

All our countrymen are grieved and astonished, nay even those who themselves have no distinct apprehensions of right or wrong, at the demoralization of the native character: there are not wanting among them many, who would delight to contribute by any possible means to their amelioration. Some consider education, some encouragement and wealth, some a rigid tutelage, the only methods by which to work a permanent and thorough reform; but there have been very few probably, scarcely one, who has considered the present subject, so unconnected does it appear in its very title, with reference to the grand question of moral improvement. The greater part of those very dry and unprofitable topics which exercise the patience of the collectors, may be well dispensed with for this so far more weighty matter, and although the remarks are here

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limited to a very small portion of India, there may be some useful suggestions which will apply to our territories generally.

In entering upon the consideration of this question, it is necessary to begin with the first proprietory right in the soil, from whence the revenues of the state are drawn, and the subject derives his maintenance,—moreover, for what purposes, and to what extent it is allowable or practicable for the state to appropriate any portion of the proceeds of the soil, dependent as that is on the labour and capital of the husbandman, consistently with its immediate or permanent benefit, in which are included all those legal enactments, all those civil institutions, lastly, all those fiscal regulations, which bind, control, or fetter the cultivator. Besides, there are a multitude of indirect occasions of loss and distress, both to the subject, the soil he cultivates, and the revenues which the state receives: the chief of which are, the abstraction of capital; undue methods of realizing the Government share, either by the irrational and obnoxious practices of its receipt in kind, or uncertainty and inequality in the rate of its commutation; the continuance of vexatious items requiring the personal scrutiny of revenue officers, or the exaction of compulsory service in any shape. Finally, insecurity of tenure or usufruct, or a want of precision in its definition; in the former are to be reckoned, legal insecurity, the insecurity of artificial or natural helps, or the insecurity of property from the want of a vigilant police, an equal, prompt, and certain administration of justice, or a neglect of the military protection requisite in times of civil commotion, or foreign war. These undoubtedly are the most striking defects in the management of the revenue, and would require a whole life to investigate and explain properly. In such a complication of inquiries we are to discover the first step to moral improvement; without it we shall grope on in the dark, and be deceived into a belief that every plan of education is essentially defective, when in reality it is the men we have to deal with, who are unprepared for its reception. The body politic has to be reduced to a fit state to receive those moral impressions, to profit and progress as it should, before any hope can be entertained of the least success. The first and most intricate of these questions, is the true proprietory right in the soil: to whom does it belong? We should put this query; not, to whom does it now, and did it always, *naturally*, but *actually* belong?

There are few subjects which have been more warmly and pertinaciously discussed by the British authorities in India, than the

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nature of the landed property or tenures on which the soil is now held by the landlord and agriculturist: yet how unsuccessfully and unsatisfactorily to the parties chiefly concerned, may be perfectly well understood from the voluminous reports and correspondence of the most efficient servants of Government, and the frequent but unavailing appeals of the different classes of the native landholders themselves, against the proceedings and awards of the judicial Courts. There are, it may be admitted, three most fruitful sources to which we should properly refer all, or at least the far greater number of controversial difficulties: Party feeling, engendered by interests and prejudices of a private or public nature; the imperfection of human knowledge; lastly, the misapplication, or abuse of words of equivocal signification. It may be considered a bold assertion, although the circumstance be substantially correct, that one and all these occasions of error have contributed to embarrass the very ablest of those disquisitions on this abstruse topic which are distinguished by close and argumentative reasoning. When first agitated, the disputants were divided as to the best mode of treating the subject or coming at its real merits, some arguing from first principles, others drawing their conclusions from existing practices: in short, the one raised a purely theoretical fabric; the latter built upon one or more facts, with a greater or less show of solidity, as these embraced a wider or more confined range. It should be observed that the first principles assumed by the one party, were open to animadversion, inasmuch as they depended upon the written law and usage of the Hindus, delivered down to the present generation through many successive ages, without adverting to the very doubtful question of their having had the precedence of every other in point of time, or indeed the further presumption that they were in every sense essentially distinct both in their nature, origin, and excellency, from the laws and usages of all other nations. The grounds for the opinions of the opposite party, were still more illusory and indefensible, being restricted to the local practices of particular tracts, grafted occasionally on the fanciful construction of feodal institutions, or the Hindu laws and traditions; with all the uncertainty attendant on their practical effect, as well as the more limited conversance of competent judges with the spirit and objects of their first institution.

If it can be satisfactorily proved that the subsisting practices of the whole of India have undergone modifications, till they have arrived at their present state, not only in more recent periods of time, but as

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far back as authentic information can vouch for such change; if it can be shown that the laws and institutions which are considered to have the strictest obligations of religion, or the sanction of a remote antiquity, have no further title to attention than the word of the priesthood who allege such pleas for the especial advantage of their own order; should it appear that these laws and institutions are embodied only with local customs, where the particular influence or ascendancy of some ruler devoted to that order has caused them to be adopted: every argument founded on this construction of the ancient usages of a country, by a code of laws of so partial a nature, must immediately fall to the ground. But this is but a very small portion of the difficulties into which many of the controversialists on the land tenures of India have been inveigled: we have the concurrent testimony of the most learned and intelligent Hindus, that their forefathers are certainly not the first occupants of the soil, that they emigrated hither, some earlier, some later than the beginning of the Christian era; and beyond all this, we have plain unanswerable chronological proofs, that their sacred books, to which they assign an incredible antiquity, were for the most part written subsequently to the seventh century after Christ. The examination of these proofs is the province of a distinct and intricate inquiry, but of which I speak with more confidence, having pursued it through all the maze of fiction, falsehood, and confusion, with which the subject has been obscured, especially by the abuse of words. The exact date of that written law is therefore no longer a matter of doubt, whatever may be said of the actual time when the mass of those aspiring adventurers who procured its promulgation, first obtained a permanent footing in the places where their descendants are now located; the industry and keen observation of Europeans will probably, ere another twenty years have elapsed, have got together sufficient materials from ancient monuments to decide this question also, and furnish out as much of the history of the former sovereigns of India before the Mahomedan invasion, as might have been gleaned from the revolting annals of successive dynasties with the regular quantum of state murders, indiscriminate bloodshed, and lawless ambition. How little the actions of those ephemeral beings deserve a place in the page of history, may be imagined from the thick darkness with which their memory is deservedly enshrined.

Like the Chronicles of the Kings of Israel and Judah, all that could be learnt, were we thoroughly informed of the names and

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actions of each individual, would be the order of their succession, that they worked wickedness, and sold themselves to do evil, and that they slept with their fathers. Beyond the scanty memorials to be found in ancient inscriptions, we can neither hope nor anticipate much instruction from the annals of Indian history. They serve indeed as useful landmarks or beacons, when properly authenticated, but are likely to prove, in an equal degree, a decoy to those who are impatient of the truth, or biassed in favor of any system. Can it be believed for example, that the bards and chroniclers have not imposed upon the annalist of Rajpootana, and have we not seen the first oriental scholar in this or any age, duped by the wily brahmin? We cannot rely on any information but that which is independent of such incentives to deceit, and must take up the whole subject, the history, the chronology, the genius, with the existing condition and practical institutions of the people, as one entire system, to be viewed and studied in the aggregate, before we can form one correct opinion. In this temper we shall immediately discover a perfect refutation of all those pretensions to antiquity which constitute the groundwork of this imposing but purely visionary fabric of laws and religious institutes, paralleled indeed by no other, because in their true acceptation, they never were acted up to. Turning aside from such delusive dreams to sober realities, the very introduction, nay the composition of these laws are seen to be but of yesterday, and altogether belie in the alterations they undergo, the absurdity of that eternal fixity, which has been ascribed to them in the asseveration of the priesthood*. In agriculture, in science, in literature, in idolatry, and superstition, in all that interests or concerns the lowest or the highest offices, the most frivolous or the most essential pursuits of life, we see in a thousand instances, that the Hindu is as ready to imitate his fellow-men as others, but his national vanity and opinionativeness will not allow him to yield the precedence to those who know more and better than himself: or it may be, that slavish fear, the lurking suspicion of his heart, apprehends the dispossession and annihilation of his priestly gains, should the multitude pry into, or perceive his deficiencies: hence he surreptitiously appropriates and pawns on his countrymen, a scheme embellished with all the outward plausibilities of age and sanctity, and squares every modern institution as much as he can by this sole rule.

* And we might add with shame, of many of the most distinguished of our diplomatists and scholars, whose long residence in India, and acquaintance with the actual state of things might have guaranteed an earlier exposal of its fallacy.

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Hence he wins the credulous of every class to place implicit confidence in his statements, and has found his tales so especially palatable to the unbounded credulity of our own countrymen, that he has seized every opportunity to obtain their full and final admission to universal observance, through this forlorn hope. He knows and trembles at the growing knowledge, that there was a time when the Hindu did not yield obedience to that written law, which now obtains a pre-eminency in all questions of ancient right, and when those who drew it up, or proposed it as the rule, had no claim or interest in the matter: it is impossible therefore to form a correct opinion of such ancient laws and usages, or of the modern which we have to do with, without first determining what was, is, and must be, the tendency, design, and character, of a system of jurisprudence, introduced, as that under consideration, in the most trivial as well as the most important concerns of domestic or public life: a jurisprudence now mixed up in some shape, with every transaction between the sovereign, the priesthood, and the people.

It may be worth while to ascertain in the first place what estimate was formed of the antiquity of the Hindu shasturs or books, whether of a religious or civil character, by Sir William Jones, to whom, and Mr. Hastings, we must acknowledge ourselves indebted for the far greater part of those opinions re-echoed without mature reflection, of the inviolable attachment of the rulers and people of India, to the rules therein propounded. In the preface to his translation of the ordinances of Munoo, he is at much pains to establish the age of Parasara by the precession of the fixed stars, and because *a* Parasara, or perhaps, this very same Parasara, was the grandson of Vasishta "who is often mentioned in the laws of Munoo, and once as a cotemporary with the Divine Bhrigu himself," he deduces the probability, that they were considerably older than those of Solon and Lycurgus. He next proceeds to an examination of the comparative styles of the Hindu books in the order of their composition, with those of the Romans by Numa, Appius, and Cicero, or Lucretius; whence he argues that the vedas are to be considered the productions of the sixteenth, and this law tract, (the Manava Dhurum Shastur) of the thirteenth century before Christ. The obvious intent of the preface, and of these observations in particular, was to show the equity and necessity of leaving the natives of the British possessions in India, perfectly free to follow their own laws and customs, which for the reasons above assigned, were supposed to have been promulgated at a remote period coeval *it might* be, with

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the first monarchies established in Egypt and Asia, and written as inferred from the incidental notice of a name in another work, in connection with the position of the colures, and rate of precession of the fixed stars, together with arguments drawn from certain equally indeterminate and singular data, to about twelve hundred and eighty years before Christ. It is not likely that Sir William Jones would have laid any stress on the age that this code was composed, or written, had it not conveyed to his mind a stronger claim on the assent of his countrymen, by that greatest of all claims, the prescriptive right of custom.. "Custom," observes Bishop Horsley, "is the principal magistrate of man's life." But here it may be asked, Are these written laws the customary laws ?—do they now, or have they ever constituted the mutual rule of conduct between prince and people ? If not, it must be admitted that they militate against the specific object for which they are held up to approval. They are vicious and unsuitable, in proportion as they have not this prescriptive sanction on the one hand, the venerable recommendations of antiquity, or the only solid and rational claims of wisdom, truth, and comprehensibility on the other. The whole drift of the introductory remarks is to satisfy the world that the brahminical written law is, and always was, the law of India ; that if any practice is not conformable to such law, it ought to be, and should be made so by the British Government : than which, nothing could be more fatal to the present and future happiness of this great empire. The people in general neither affirm nor believe that such law was immemorially followed, nor can we go any length in our compliances with its principles, without the rejection of those correcter principles on which all law is founded, if by the Divine Being, on principles of equity, equality, and reason ; if by mere human skill, but too often on principles of injustice, partiality and ignorance.

Of law, as of religion, *strictly speaking*, there can be but one plain and true definition—that it be consistent, complete and adapted to its purpose : whatever is short of such excellencies, whether it be inconsistency, incompleteness, or inefficiency, abrogates in any scheme of religious belief, or dispensation of justice, every title to respect or inviolability ; for if any point can for good and sufficient reasons be contested or oppugned, in regard of either of these requisites, the objection applies universally. And on such grounds, barring the assumed acceptableness and antiquity of the brahminical doctrines, the Hindu Jurisprudence is open to general reprobation : to use Sir William Jones's own words, "it is a system of despotism and

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priestcraft, both indeed limited by law, but artfully conspiring to give mutual support though with mutual checks." And this code conspiring to support despotism and priestcraft, is proposed as our rule in determining in matters of inheritance and contracts, between man and man, checked only by such provisions as the pundits or brahmins may think fit to bring to the remembrance of the judge. The persons who framed these laws had these objects particularly in view in all their provisions, and the restraints on their infringement: wherefore, the removal or modification of either, not only precludes that efficiency, but annuls that necessity, which was the express intent of the lawgiver. The British legislature interferes, and with great discretion and justice, in the continuance of a variety of absurd and sanguinary rules, that form an essential feature in the Hindu penal statutes; and though the whole of their institutes and written opinions of the rights of their fellow-creatures, present a confused jumble of criminal and civil, domestic and moral law, it is believed that the extraction of those portions which relate to successions and contracts, to property in chattels and property in the soil, will be best understood by reference to so indefeasible and authoritative counsellors.

A diligent examination of the landholders themselves would shew the folly of this supposition; as an impartial review of the Hindu writings and the spirit of the brahminical tenets would also disprove the general acceptance or compatibility of the written law to the circumstances of the people. If we desire to ascertain what the brahmins intended, we may immediately satisfy ourselves from their books. But if we wish to acquire an exact insight into the customary and acknowledged usages of the people, that immemorial custom in fact, which it is politic and humane, so far as is consistent with equity and fitness, to continue to them undisturbed; we must go to a far more venerable and abstruse record, the history of the present and past condition of India, the contrasted review of the Hindu and other Asiatic nations, as they stand affected to the age, progress, and circumstances of the human race: we must learn the state of existing usages, their tendency and efficacy from the fruits of certain experience, and admit the written law to have no greater influence or validity in deciding any question of this universal concern, than it is really worth; emanating as it is known to do, from a suspicious quarter, with sinister purposes.

In the general outline which I have drawn up of the ancient History of the provinces, South of the Nurbhudda, we have the most

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rational clue to the various tenures which have subsisted from the earliest times. We could never expect to explain the true character, objects, and origin of present institutions, by referring exclusively to that code of laws to which the Brahmins appeal as the sole arbiter or guide of the first occupants of the soil; forasmuch as the Brahmins themselves admit that they are descendants of a foreign race, and would not, even so far as these came under the operation of their particular policy, be disposed to incorporate, or allow in their books, any practice which did not consist with the stability of such interests and connections. We must search therefore for the traditionary system which prevailed before the existence of the Brahmins, or followers of Vishnoo, as a political body, and although it must be confessed the destructive and unrelenting hand of time has left us but few guides to consult, or direct us, these are better than those which obtrude themselves on our attention with all the effrontery of a corrupt and designing superstition. The followers of Boodh, who exercised the supreme authority in the days of Alexander the great, appear to have continued in undisturbed possession of India for many ages, always more or less tributary to the neighbouring kingdoms of Bactria, and Persia, as the reigning monarchs were enabled to enforce obedience. The nearer and more frequent intercourse with these countries, will explain the identity of the pure Persian and the Sunskrit language, as well as that remarkable intermixture of the Sabian worship with the contemplative reveries of Boodhism, which then prevailed throughout Asia in all its pristine simplicity.

At whatever period the present Hindu races may have entered India, which could not have preceded the irruption of the Mahomedan armies by many centuries, the general consent of native tradition, ancient record, and indirect testimony, warrants the belief, that the Boodhists were succeeded by the Brahmins, Rajpoots, and other adventurers in the 5th or 6th century of the Christian æra: thereupon, the latter framed such institutions, as were calculated to preserve their own authority and possessions inviolate, and to secure as far as its framers could foresee, a regular and uninterrupted descent of all proprietory rights to their descendants, in equal shares from generation to generation.

The method which every nation, whether placed by general consent at the head of such a people, or arrived at this power by conquest, must necessarily resort to, would be the observance of such

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existing institutions and rules, as either favored or did not clash with their own objects, on which they grafted such others as contributed to their having full and lasting effect. Such policy must necessarily be observed as an indispensable predicament at all times, and the argument is strikingly illustrated by the course pursued by our Norman forefathers, who blended the Norman with the Saxon laws and ordinances, leaving the great mass of the latter as the law of the land; annexing to them such only, as were confirmatory of their own interests and safety, as conquerors: and in fact, we know of no conquests in any part of the world, that were ever attended with a different course of procedure, save the Jewish, which being the great model and masterpiece of those confederations which unite individuals, families, and nations, could not but supplant the vicious and weak institutions which went before them. There the Jews were not suffered to admit of any remnants of the laws they might then find in force, which demonstrates that religion, or those superstitions which usurp its excellent title, form an integral and essential part of all law, and can never be separated from it: the abrogation or corruption of the one, must in an equal degree affect the other, nor can we fully and rightly apprehend that one, without a thorough acquaintance also with the others. In the instance we have before us, the Brahminical priesthood brought in a system which, like all schemes of idolatry, not averse to any other doctrines or practices, by which its own foundation was not endangered, received an accession of strength, if we might venture the expression, by amalgamation with another, having much the same designs; the maintenance of a crafty, indolent, and avaricious priesthood; the continuance of the same degraded ignorance, abject subjection, and fixedness of condition, of the lower classes; with such returns from the soil and their labour, as should just maintain the latter from day to day, reserving only the power of exacting every thing over and above this for themselves. The fact that this country has been always more or less overcome by foreign armies, and its inhabitants enslaved, not only by superstition, but a foreign yoke, shows the influence of a bad Government; for of the ingredients of its population, it is now even more difficult to pronounce with any degree of certainty, than of the French, or British, or any European kingdom; Copts, Abyssinians, Persians, Georgians, Toorks, Arabians, and Tatars, have all become incorporated in some one or other of its various classes, and of the Hindus, not a few still present a striking resemblance in form and feature to their first originals.

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The groundwork therefore of the land tenure and proprietory rights in the soil, is undeniably most ancient; on this was reared the fabric we now have, with all its modifications introduced by Brahmins, Jyns, and Mahomedans; the spirit and bearing of these on the first principles is to be understood by the effects they have produced; from these we may learn what may hereafter be anticipated in the way of amelioration, from those measures already put in action by ourselves, far more satisfactorily, than by a discussion restricted to existing practices.

That the Egyptians and Chaldeans frequented India in the first ages after the flood is probable, from the agreement of the symbols of their worship, and the curious remains of many buildings and temples which abound with figures quite distinct from those of the modern Hindus: the sculpture of the features, form, and dress, though closely resembling the Egyptian and Abyssinian, may be held as corroborative evidences. Whether people of that nation gained ascendancy by their superior skill, and versatility of talent, or formed alliances, we must now be content to remain in ignorance; but the dominion of a few powerful and ambitious legislators might well account for the introduction of those obscene and cruel rites which distinguish the superstitions of both. Whatever good such persons could impart, would be limited exclusively by selfish views, the institutions of Egypt would, so far as they affected the land, be communicated therefore to this extent likewise.

By such arguments we might consider the proprietory right of the soil vested in the first great proprietor, or landlord, by whom, as the dispenser of honor and wealth, the same was delegated to others; but it is impossible abstractedly to conceive of any proprietory right, but that which eventually resolves into the sovereign's. The most authentic and ancient documents, inscriptions on copperplates, and buildings, brought to light under circumstances altogether devoid of any liability to fraud, or deception, prove this proprietory sovereign right, when society had made considerable advances to a settlement from the pastoral to the agricultural state. These therefore mutually concur to the same point. Mr. Wilks, however, in his history of the south of India, appears to have completely misunderstood the scriptural account of the Egyptian and Israelitish institutions; which he has adduced cursorily as a testimony to the contrary opinion. Beginning with the Jewish government which at first was a pure theocracy, in every sense of the word, for they had no king but God; the priests' inheritance was perfectly distinct

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from that of their brethren*: they had the tenth, or tythe, in all Israel, but no inheritance whatever in *their* lands; both one, and the other, the Levites, and their brethren of the remaining tribes, receiving and occupying of this their only king. These all sold and disposed of their lands, and those that bought, or received them in mortgage, were bound to restore them to their first proprietors, after a specific term, yet the right of transfer and possession was affirmed and admitted as held originally from the first sovereign donor.

The contribution for the state, or revenue we know has, and must always have been, essentially distinct, whether in service, or in money, or in corn; for the Levites were not reckoned with the rest of Israel, and were exempted from all concern in war; that portion of the general inheritance of Israel which was required for the state included no exactions from that which was already given away, nor would it have anticipated any diminution of such funds originally without inconsistency. What was once pronounced holy, ἁγίος, separated; ΚΗΟΔΕΣΗ, Heb. reserved, or specially appropriated; was the Lord's, and accordingly assigned to his ministers†: this was the nature and consequence of a theocracy. Under this form of Government, and this head, there could be no stated expenditure of the fixed nature of revenue, but what related expressly to the Lord's ministers and temple; but when the people asked for a king the

* Deuteronomy xviii. 1, 2; Numbers xviii. 20, 21; Leviticus xxv. 23, 24; It should be carefully noted that the law of Moses required 48 cities with their suburbs (a square of 2000 cubits or 4,000,000 square cubits 400 *arourœ*) to be given to the Levites, Numbers xxxv. 1, 8. These suburbs were distinct from the lands of the Israelites, "the fields of the suburbs of their cities may not be sold, for it is their perpetual possession." Leviticus xxv. 34. "The houses of the villages which have no wall round about them shall be counted as the fields of the country: they may be redeemed and they shall go out in the Jubilee.—Notwithstanding the cities of the Levites and the houses of the cities of their possession, may the Levites redeem at any time." Leviticus xxv. 31, 32.—See also Leviticus xxvii. 28; Ezekiel xi. 4.

† Leviticus xxvii. 30; 1 Samuel viii. 7.

"The land shall not be sold for ever: for the land is mine; for ye are strangers and sojourners with me. And in all the land of your possession ye shall grant a redemption for the land." Lev. xxv. 23, 24. So also Hooker observes of the institutes of Charlemagne: "Neither did God only thus ordain amongst the Jews: but the very purpose, intent, and meaning, of all that have honoured him with their substance, to invest him with the property of those benefits, the use whereof must needs be committed to the hand of men, in which respect the style of ancient grants and charters is,—We have given unto God both for us and for our heirs, as ye well know," says Charlemagne, "that the goods of the church are the sacred endowments of God."—Hooker, lib. 5. p. 459.

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whole constitution was remodelled. They had then rejected their proper sovereign, and required one like those of the nations around them, the manner of whose government is told us a little further on. "He will take your fields and your vineyards, and your oliveyards, "even the best of them, and give them to his servants, and he will "take the tenth of your seed, and of your vineyards, and give to his "officers, and to his servants, and he will take your men-servants and "your maid-servants and your goodliest young men, and your asses, "and put them to his work." He will take the tenth of your sheep, and ye shall be his servants. This was the exact similitude of a king to judge them, to go out before them, and to fight their battles, —he was to take a tenth of all, for his own, and his household's use, not interfering with the tenth which was the Levites,' as the ministers and stewards of divine worship. In all therefore the people were charged with one-fifth of the produce of the lands, that is, as much more as they had been accustomed to pay. The event proved the truth of this forewarning counsel. Saul, and David, and Solomon, took what they required, and over the king's treasures was one, over the storehouses in the fields, in the cities, in the villages and the castles was another* ; but all these officers were the keepers of the king's especial substance : the superintendant of the tribute, noticed by Colonel Wilks, (vol. 1, ch. 1,) was not an officer to collect revenue from the Israelites, but a person appointed over the Moabites, Syrians, and Canaanitish tribes, tributary to the Jewish kings. The first notorious act of violence was that of Ahab in possessing himself of the vineyard of Naboth. The land had been assigned to the forefathers of this man, and by the laws of the land was his property, but the king ejected him, as a king, not of necessity or descent possessed of the first sovereign's power and rights, but armed with despotism, like that of the surrounding monarchs. In him, therefore, the ejection was a grievous display of arbitrary power, for which as he could find no sanction even in his own heart, he superadded murder, seeing that so long as the proper owner existed, his title to the vineyard would be invalid. This is a true picture of despotic power, and in taking the heathen nations as their guide, the step from a monarchical to a despotic government was inevitably sudden

* 1 Chronicles xxvii. 25—31 ; Joshua xvi. 10 ; xvii. 13 ; Judges i. 28—33 ; also under David, 2 Samuel viii. 2. 6 ; lastly under Solomon's reign, 1 Kings ix. 21, 22, 33 ; 2 Chronicles viii. 9 ; and towards the close of Solomon's reign, 1 Kings v. 13, 14 ; ix. 15 ; xi. 27.

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for that was the prevailing government of the heathen, the *Goyim* of Scripture, at the period of this great political change.

Next to the Jewish, we may consider the Egyptian. The Patriarch Joseph, we are told, took up (cultivated on the king's account) one-fifth of the land of Egypt, and brought together all the superabundant corn of those seven years, which he housed till the expiration of that term, but when the years of scarcity came, and the improvidence of the people placed them entirely at the disposal of their prince, the gratitude, the wisdom, and the integrity of the minister, were as conspicuously exemplified, as his consideration, humanity, and justice. He had indeed other commissions to execute, to save his father and brethren alive, that family in whose posterity all the families of the earth were to be blessed; but he required of the people that they should bring, thenceforth, one-fifth of all their produce into the king's store-houses, the priests, or princes as it may be translated, being alone exempted; "for the priests had a portion assigned to them of Pharaoh," and this was the exact state of the Jews under their kings. To understand the equitableness of this contribution, one fifth of the produce, it must be remembered that the monarchs of Egypt had no such law before that, nor did it subsist at a much later period, when Diodorus Siculas wrote of that country; he tells us the ancient practice was to mete out the lands into three shares, one to the sovereign, one to the priests, and one to the soldiery: but this provided one fifth of the whole for the former two estates, and four-fifths for the people for seed and for food. Joseph required upon the king's account, in accordance with the despotic usages of the nation, the fifth of the lands of Egypt, (literally, he made five parts;) and besides this, he bought all that was not required by the people, in the seven years of plenty, which he placed in safe and convenient situations, as it might be subsequently required. At the termination of the seven plenteous years he distributed and sold out this corn, first for the money, then for the cattle, then for the lands of the people, which he restored to them altogether, under a new and wise obligation that they should pay, as of right, two-tenths, that is one-fifth of all their produce, for ever, to the King, his master:—that is, one-tenth for the state expenses, one-tenth for the priests, as holding of their Sovereign the chief of that body, and in whom also the chief magistracy and political authority was vested. This institution was the very same which was introduced under the kingly government of the Israelites; it is that which has served also as the model or rule before and since, in all monarchies and governments, and in fact, which obtained

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anciently in all Asia, whether in Persia, in China, or in India. There is equal reason to believe that the Romans adopted the same rate of contributions for the state as the land was called decumanus, and the tenths or tythes, decumani, all such tythable lands were distributed amongst the citizens; the same was likewise followed in all the Roman colonies, and it is thought that this extreme lenity of the conquerors towards the people they had subjected, contributed most materially to the extension of the empire, because their native princes generally required a much larger amount of revenue.

Traces of this are still to be discovered in all the mountainous and inaccessible parts of Asiatic countries in India, such are still to be found on all the coast of Malabar, on the western frontiers of Berar, Orissa, on the north-eastern frontiers of Karnata, and in the eastern districts of Goojrat. In every country we may observe the progressive changes introduced by the Mahomedans and Brahmins, and even in the legendary and mythological tales of the latter, there are positive proofs that this rule was general all over India. The Muhabharut, an epic poem highly esteemed by the Hindus, and considered of great antiquity, expressly states, that the prince is entitled to one-tenth of the grain produce, and a fiftieth of the produce of mines. The institutes of Munoo, translated by Sir William Jones, are not materially different in the amount of the tax, but savour of that ambiguity which was always a prominent characteristic of the Brahminical writings, "of cattle, of gems, of gold and silver, a fiftieth part may be taken by the king; of grain an eighth part, a sixth, or a twelfth." Here was the first inlet to the present system of undue exaction, which furnished the Mahomedans and Mahrattas with a pretext for increasing the demands of government. In the commentary of Culluca Bhut printed with the text in Italics, a reason is assigned for the variable tax, which is just such an account as a revenue officer would give, "according to the difference of the soil and the labour necessary to cultivate it." There is much greater reason to ascribe it to the difference of the tenant's rights to the usufruct, because the original possessor had certainly a greater interest and claim in the produce, than one holding the land by sufferance, or on mortgage: for it appears that the Hindu law required of those who held land on such terms, to pay one-eighth to the proprietor, and one-eighth to the king,—in all one-fourth; but when lands were held which belonged to those who had thrown them up, or fled the country, one-sixth was paid to the king, less indeed than lands mortgaged were assessed at, but more than lands paid, which were held by the first proprietors of the soil.

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It is not to be supposed that the Greeks could have known much of the ancient institutions of India from the companions of Alexander, but the power of the king to levy one-fourth of the gross produce in seasons of unusual distress, was probably even then in force; but it is not asserted either by Diodorus or Strabo, that this high rate of exaction was the established custom of India. Whether it were really the case, it was declared to be lawful in the institutes of Munoo; and Mr. Grant, in his account of the revenues of Bengal, informs us that this was the maximum of taxation when the Mahomedans first invaded India. This also was the sum paid by those who cultivated the lands of others, one-eighth to the proprietor, one-eighth to the king; that is, a proportion of the produce.

In the Ayeen Akberry we may discover the first changes introduced by the Mahomedans. "In former times," says Abool Fuzul, "the monarchs of Hindoosthan exacted the sixth of the produce of the lands; in the Turkish Empire, the husbandman paid the fifth; in Turan the sixth; and in Iran the tenth." Again, "Latterly in Iran and Turan, government has taken a tenth of the produce of the soil; but at the same time the husbandman is loaded with a number of other taxes, which altogether exceed half the produce*. These last are the imposts and collections previously noticed called "Syerzukat." Previous to the reign of Akbar, there had been no alterations in the Brahminical system of finance, but his attention being called to the exactions of the revenue officers, he appointed several intelligent persons to investigate the ancient and present usages of the countries, and assessed the lands at one-third of their gross produce, that is two-sixths.

How a monarch so just in all his dealings, whose memory is still so much revered by all classes of people, should have doubled the ancient assessment, can only be explained by reverting to the principle of division which we have described as subsisting anciently in Egypt. The provision for the priests, and the service and objects of religion, was levied with the state levy, and was exactly equivalent to it. In the ancient government of Anagoondee, the capital of Karnata, the whole produce was estimated and apportioned in four parts, three-fourths to the proprietors and cultivators; one-fourth to the state and priesthood; at first one-eighth of the gross produce to each of the two latter: but there was little pretence for the due payment of the share appropriated to religious uses; and Buchanan says, the state reckoned the government share

* Ayeen Akberry, vol. 1, pp. 278, 279.

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to be one-sixth. The prince therefore set an example to the other estate to levy as much: all which, or one-third of the gross produce collectively, was the amount of demands imposed by Akbar's minister Todur Mull, and considered a change greatly for the better, after the oppressive system of Sheer Khan, and their Hindu masters.

When the Hindu institutes left the amount to be levied, in uncertainty and doubt, it stood to reason there would be no plea untried to wring from the cultivators as much as could be got without absolute rebellion. None of the earlier Mahomedan sovereigns gave themselves any trouble about the exact and just settlement of the revenues; their minds were wholly bent on conquest, and the overthrow of idol worship; neither did they live sufficiently long to be enabled to perfect any measures for the stability of their newly-conquered possessions; but Akbar united a spirit of moderation, discernment and justice to the military decision and fearless ambition of his forefathers: and the character of such a monarch soon brought about his court all the ability that was requisite to the undertaking. The entire spirit of Akbar's regulations was in accordance with the Hindu system, with this sole difference, that the Mahomedan sovereigns took the management of the fund for religious and charitable uses into their own hands, and thus, the object of the tax having been lost sight of, it has been generally thought, that the assessment fixed by Todur Mull, was for the expences of the state alone. So long as there was no other religion to provide for, as in the earliest periods of Hindu history, or when the Brahmins disallowed the maintenance of all other but their own, the share set apart for the ministers of their worship or its service, did not require any more particular mention in their law books, than we find in the injunctions to give gifts, and lands, and cattle, and money to the priesthood:—to have restricted the amount of gifts and assignments in that system of laws, would have been adverse to their spirit and intention:—it was the design of all the Hindu legislators, to exalt, to aggrandize and enrich the Brahmins, but the case was quite altered when the Mahomedans had gained a permanent footing in India: the prince himself being of this persuasion, it was an act of toleration in Akbar, to dispense to the Hindu from the same fund as he did to the Mahomedan priesthood; and whether Todur Mull acted with the advice of Akbar, or from respect to his own connection with the Hindu religion, we may at once discover the origin of the amount to be levied. Abool Fuzul, in the Ayeen Akberry, enumerates a number of cruel and impolitic imposts fixed by former monarchs;

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all of which were abolished by the revenue managers of the upright prince, his master.

What the amount levied by the Hindu princes was, we have already seen; it is probable that it included the two items usually levied in former times for the two separate estates, the Government and the priesthood—wherefore, if we consult the spirit and letter of the Hindu law books, it would appear that the sixth part, or eighth, or twelfth of the produce of the country, as above noticed, constituted the full amount levied on both accounts anterior to the written law. The Mhanava Dhurum Shaster describes the duty of a Hindu soveriegn with respect to conquered territories. "Having conquered a country, let him respect the deities adored in it, and their virtuous priests; let him also distribute largesses, and cause a full exemption from terror to be loudly proclaimed. When he has perfectly ascertained the conduct and intentions of all the vanquished, let him fix in all that country a prince of the royal race; and give him precise instructions. Let him establish the laws of the conquered nation as declared, and let him gratify the new prince with gifts. The seizure of desirable property, though it cause hatred, and the donation of it, though it cause love, may be laudable or blameable on such occasions." (Chapter 7, art. 201—204.) Here we have the letter and the spirit of Hindu legislation on this point,—and it suffices to prove, that so far as the established law of the conquered countries conformed to the Brahminical institutes, it was preserved; yet whenever it clashed against, or differed from it, the prince had the power of dispensing with its continuance. A deep study of the whole Hindu code, and a review of its spirit and objects, would concur therefore to shew the identity of the principle of the Jewish, Egyptian, Persian, and this Hindu rule of fixing the imposts to be levied.

Sir John Malcolm, than whom few persons have had so great opportunities of obtaining correct information on this subject, was struck with the great similarity of the Hindu to the Jewish code*;

* With the church of Christ, touching these matters, it standeth as it did with the whole world before Moses. Whereupon for many years men being desirous to honour God in the same manner as other virtuous and holy personages before had done, both during the time of their life, and if further ability did serve, by such device as might cause their works of piety to remain always, it came by these means to pass that the church from time to time had treasure, proportionable unto the poorer or wealthier estate of Christian men; and as soon as the state of the Church could admit thereof, they easily condescended

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but of the latter he seems to have had no more knowledge than is to be gleaned from the innumerable treatises, copies of, or references to, some crude opinions of early Christian authors. And this also holds true likewise with regard to Colonel Wilks, and other writers, on the subject of the land tax of the ancients generally. Sir John Malcolm begins his report on the administration of the Revenues of Central India, by the consideration of the tenures of land, which he says differ in no essential degree from those in other parts of India. He considers, as most persons have done before and since, that the theoretical part of the question has received more attention than it merits; the actual usages less. It would be quite unnecessary to produce a single additional proof that our countrymen have entirely overlooked the effect of the spirit of a legislative code on the morals of the people. Few have thought with the wise and virtuous Sir Henry Strachey, that the morality of the Hindu is wrapt up in every part and article of their law and religion; it is so remote an effect from a cause so complex and hidden, that it is

to think it most natural and most fit, that God should receive, as before, of all men his ancient accustomed revenues of tithes. Thus therefore both God and nature have taught to convert things temporal to eternal uses, and to provide for the perpetuity of religion, even by that which is most transitory. For, to the end that, in worth and value there might be no abatement of any thing once assigned to such purposes, the law requireth precisely the best of what we possess; and to prevent all damages by way of commutation where instead of natural commodities or other rights, the price of them might be taken, the law of Moses determined their rates, and the payments to be always made by the shekel of the sanctuary, wherein there was great advantage of weight above the ordinary current shekel. The truest and surest way for God to have always his own is by making him payment in kind out of the very selfsame riches which through his gracious benediction the earth doth continually yield. This where it may be without inconvenience is for every man's conscience' sake. That which cometh from God to us, by the natural course of his providence, which we know to be innocent and pure, is perhaps best accepted because least spotted with the stain of unlawful or indirect procurement. Besides whereas prices daily change, Nature, which commonly is one, must needs be the most indifferent and permanent standard between God and man. But the main foundation of all whereupon the security of these things dependeth, as far as any thing may be ascertained amongst men, is that the title and right which man had in every of them before donation doth by the act, and from the time of any such donation, dedication, or grant, remain the proper possession of God till the world's end, unless himself renounce or relinquish it; for if equity have taught us that one ought to enjoy his own, that what is ours no other can alienate from us, but with our own deliberate consent; finally, that no man having passed his consent or deed, may change it to the prejudice of any other, should we presume to deal with God worse than God hath allowed any man to deal with us?—Hooker's Eccl. Polity, book 5, vol. 2, page 456, § 79.

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beyond the reach of very many to discover, and the time of others who are competent to investigate its real usefulness, is taken up with frivolous and tedious business which precludes a more perfect understanding of it.

"In the theory even," says Sir John Malcolm, "of this subject, we must recollect, that according to the Hindu sacred writers, the soil first belonged to him by whom it was occupied and tilled; for kings, we are informed by these authors, were instituted subsequent to the cultivation of the soil, and the possession of property; and we find it stated in their most revered texts, that at the commencement of monarchy a due or tax of ten per cent. upon the land was assigned to monarchs for their support." "There is a remarkable coincidence," he further observes, "in the share of produce of land allotted for the first Hindu rulers, and the tythes fixed for the ministers of the Christian Church, which were borrowed from the Jewish code." Mr. Wilks in his History of the south of India, has fallen into the same mistake, confounding the Jewish tenths or tythes for the priesthood, with the tenth for the state expenses or king. He says, speaking of the Jewish, "I have not been able to trace with any certainty, the nature and amount of the contributions which were paid for the service of the state, unless we are to consider the interests of the priesthood and of the sovereign, to be united, and a portion of the tythes in peace, and of the slaves and cattle taken in war, which was paid to the Levites, as intended to be applied to the public expenses of the state. The tythe itself is of the exact nature of the Indian contribution; and the inference that this or some separate portion of the crop was payable in kind to the sovereign, appears to be supported by the existence of a special officer for superintending the tribute, and another for the store-houses in the fields, in the cities, in the villages, and in the castles; an enumeration which seems to show that a portion of the crop was laid up for the sovereign in every field, village, and city." He further observes of the Jewish tythes: "This supposition is strengthened by observing that Mahomed, who borrowed so much from the Jewish institutions, levied a tenth, as head of the Church, but applied a large portion of it to the services of the state; and it would also seem, that this was the portion exacted from Judea after its conquest by the Romans*." From this it would appear that neither of these distinguished officers consulted the original with any

* Wilks's South of India, vol. 1. page 134, chapter 4th.

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great diligence, or they would have seen, that the king's revenues levied after the manner of the kings of the nations, of which we have already given an account, was quite a distinct tax from that for the service of religion, and is shown to be so in all Mahomedan countries, by Abool Fuzul in the Ayeen Akberry, the Asheree of the Turkish Empire, and the tribute, or κηνσον of the Romans of a denarius, being cesses on a conquered people*.

The sum of all which is briefly this, that the most ancient land tax throughout the world, and which even now subsists in some countries, was one-tenth of the produce, specially levied for the service of the state, or king; besides this, there was another tenth or tythe levied for the service and ministers of religion; collectively one-fifth, which fifth was that very amount settled by Joseph in Egypt *on a correct measurement of all the lands in cultivation.* When the Jews were under a theocracy, they were subject only to one of these charges, for the express use of the ministers and worship of their Divine King and Lord, but when they resolved on having a king *as the nations* around them, they were charged with a further tenth to pay his servants, and thus they exhibit to us the portraiture of those most ancient institutions, when all monarchies were formed after one simple model. In the number of these was India; where the prince levied a tenth for his own expenses, the ministers of religion their tythe. When the Boodhist religion was put down by the worshippers of Brahma, Vishnoo, and Sheeva, it was politic and consistent in these professors of a more corrupt religion to take the whole revenues into their own hands, that they might bestow the portion for the ministers and service of religion on their own priesthood, because their object was to exterminate those that preceded or differed from them; hence they levied a sixth, perhaps intentionally fixing a less proportion of the whole produce (than two-tenths, or one fifth), because they might desire in some measure to reconcile the people to their own plan. In this way, the land became charged with the first, and the second or more moderate tax, and in the latter state all those countries were found which were overrun by, or subjected to the Brahmins, or their followers. Still a few countries proving inaccessible, or their people an overmatch for the Hindus, retained the earlier and more simple institutions. These countries are chiefly in the south of India, or in the woody fastnesses of the Payeen Ghats; on the east of Goojrat,

* Matthew xxii. 17—19.—Mark xii. 14.

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the valley of the Nurbudda, Malabar, Koorg, Kanara, the Konkun, Travankor and lastly Ceylon. When the British commissioners reported on the Island of Ceylon in 1795, the tradition had always been, that the sovereign's share was one-tenth of the produce, and it was so then: it cannot be supposed that this small land tax was chargeable with any other deductions for the maintenance of the religious worship of the natives.

Having brought down the account of the land tax to the days of Akbar, and the plans introduced by Todur Mull, I shall revert to the main question at issue, concluding only with a few remarks, regarding the period of a stationary tax, corresponding more or less with the amount directed to be levied in the Hindu shasters. The Mahomedans, as I have before noticed, were occupied in making conquests and converts; they took what they could get, and as much as they could wring from their opponents; but the emperor Akbar found it more desirable to retain what had been already conquered, to consolidate, to reconcile, and to remove every feeling of mistrust or hatred from his new subjects; he was urged therefore by every motive to make himself universally known as a resolute but humane master, a king in every sense of the word, in the opinion of Hindu and Mahomedan. He viewed the taxes in the light of emissaries, to convey his intentions and character to the utmost verge of his dominions, for he saw that oppression would bring all that fabric to the ground, which had been raised by his forefathers; he saw and felt, that every cultivator could appreciate the worth of a ruler who dealt with all his subjects, of whatever faith or hue on the same principle; he desired to gain their affections by removing all uncertainty and all undue exactions, with which intent he fixed the sovereign's share at one-sixth, the share for the ministers of religion of his own or other creeds, at one-sixth more, in all, collectively, one-third, precisely as his predecessors the Brahmins had done. This amount of tax, one-third, was therefore an improvement on a state of things when the amount to be levied was uncertain, and in the highest degree ruinous and oppressive. From Akbar it was received throughout the whole Indian Empire, as a pledge of his moderation, humanity and justice. He went the whole length with the most bigoted of his own faith, in reserving the distribution of the share of the priesthood, that he might dispense it equally both to Mahomedan and to Hindu, at the same time that he reconciled the population the great mass of whom were Hindus, to a foreign yoke, and the appropriation of a portion of their priesthoood's rights to the service

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of a very different religion. To have done less would have proved fatal to the Mahomedan dominion;—to have omitted it altogether, would have been to permit every disorder to spring up both among his own countrymen and the Hindus, and work by slow and hidden, but certain methods, to the disorganization of all good government and the confusion of all religious establishments.

It is as easy to conceive of a kingdom or state existing, when divided against itself, as to imagine a component and essential body of that kingdom or state to have any interest in which the other does not participate: it would be as impossible to instance a more certain indication of the connection and identity of the whole political body, than this mutual interest in each other's rights: either therefore the constitution of such state must be of one form and character, or it must fall to the ground. A republic cannot subsist with a monarchical government, though the excess of republicanism may tend to monarchy, or the abuse of a monarchical government to despotism, or the miseries of an absolute monarchy engender a spirit of republicanism; but so long as the constitution of a state is fixed in one or other of these forms, the whole of the estates which compose it will partake of the like characteristics. We may put this question therefore, What is, nay, has always been the prevailing character of the Indian Governments? No one will hesitate in answering, an absolute or despotic monarchy: how then can such monarchy be divided against itself and contain the seeds of innumerable small republics; either they are no republics, and to be considered only as temporary expedients provisory against the miseries of anarchy; or if republics, the whole state could not long continue at a stand, but would tend, and eventually become, altogether republican. For this reason it is not to be believed that the village institutions, those innumerable small federal republics, could have a distinct character from the sovereign's, they are but provisions against confusion and misrule, or rather subordinate arrangements of that great despotic monarchy which originates, preserves, or countenances them.

Again, as we have seen that the kings in every condition of government, whether a theocracy, a limited or an absolute monarchy, levied one-tenth of the produce of the land, we cannot conceive that either the king or the people could participate without a mutual interest in the same property, the king in the labour which is bestowed by the people on the soil made over to them by him; the people in the soil for the usufruct of which they pay by the gains of their own industry. The soil therefore is the property of the

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king, and the tax levied whether in service, or money, or kind, for its usufruct, his just and bounden due, which amount was fixed, time immemorially, at one-tenth. That, which under all other governments but the theocratic was levied for the service of religion, was a separate charge: under the Mosaic law, as well as under the primitive economy it was one-tenth, or the tythe of all possessions, and this has been the model or practice of all nations, and is so even with many to this very day. The negligence of the people, far more frequently than the cunning or talent or ambition of a few individuals, has compromised the first simple monarchical institutions and brought about a despotism on the one hand, or a slavish submission to the nobles on the other, in which all the rights of the weaker party have been violated and the mutual interests of both sacrificed to the ruling power. The weaker naturally have recourse to every expedient to redress their wrongs which they can avail themselves of: that expedient is seen in India, in the institution of those village communities which are said to have been of most ancient origin, though there is no proof to this effect anterior to the first arrival of the Mahomedans in India. On the contrary, what we learn from old inscriptions on copper-plates and monuments, is calculated to disprove the existence of any such federal republics in times past: they affirm the land to be the property of the sovereign, the whole of the officers of the land to be his dependants, and the cultivators, his tenants. Are we to conclude that the sovereign's share was fixed without any forethought or justice, that he took in virtue of his *mere* regal authority, a portion of the proceeds of that labour which undoubtedly was not his own, whatever be thought of the land? Can it be believed that the cultivator would have delivered up any portion of his gains, the produce earned with the labour of his hands and the sweat of his brow, when he knew the whole appertained either to him as an individual member of the township, or village community collectively, with his fellows; that federal republic, which is styled a perfect *imperium* in itself? The conclusion is absurd in the highest degree, that a member of a republican form of Government should have submitted and should have tamely surrendered his rights or the rights of that estate to which he belonged; and yet that member, and all the individual members collectively, have preserved the same republican spirit unchanged: that they should have answered all the demands of the state, whether authorized and admitted, or oppressive and unjust, and yet have maintained an example of republi-

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canism that is altogether adverse to monarchy in any shape. When the Israelites were under a theocracy they received their lands as assignments by the command of their King and Lord, from a conquered country; they were assessed lightly, because there was no need of kingly retinues and state expenses of any sort, but what appertained to the ministers of the altar. When they chose to have a king after the manner of the nations, the service of the temple was not neglected, but the king required a separate maintenance for himself and his court, and servants. The first that exercised this office, and all that ruled after him, evinced, more and more, the folly of their choice; for as the people became impoverished, they became enslaved, and the result was a despotism, of which all Asia affords melancholy attestations. The consequences of that despotism are felt more deeply because the exaction rose, age after age, higher and higher. At first it was a tenth, then a sixth, then a third, then a half or more, in which predicament, we have found it, on the conclusion of the late war, on the western side of India.

The whole of this great empire illustrates the foregoing account. When India was under one monarch, there were lords of five towns, of twenty, of a hundred, and so forth; when the reins of Government were relaxed, when the social compact of its earliest institutions was weakened or dissolved, when the surrounding nations, the hardy Scythian, and the brave Tatar, had espied the flimsy texture of that network which bound all the discordant materials of this immense body together, they perceived that there was no regular principle of union, no common feeling of patriotism, no bond in short, but what is the offspring of vanity, fear, and superstition; they dissolved the charm by breaking up the confederations nearest them; the rest rushed together, each to the standard of some leader, whose cause they upheld by the spirit of a grovelling dependence, guided instinctively to such selection, by those natural barriers and restraints alone, which first define the utmost limits of an empire, a district, a hundred, or a village, and thus arose necessarily all the petty principalities and states throughout India, the ancient *Bharutu Varshu*. Thus arose the kingdoms of Maharashtra, Telingana, Karnata and Draveed on the ruins of the first great empire, after which, in the days of Humaiyoon and Akbar, and Shahjehan and Aurungzeeb, successively, sprang the innumerable poligars or rebel chiefs, whose cradle was insurrection, and whose first impulse and only nourishment was plunder. Bred up in the bosom of anarchy, they were favorable to the institution of those village communities,

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which are supposed to exemplify republics, and to attest the stability of Hindu civil society, when they are in reality the strongest, the last, and the most indubitable evidences, of the internal weakness of the ancient Hindu monarchies; they are proof, beyond all contradiction, that the monarch was the undoubted lord of the soil, and that the whole fabric of society was inaptly put together; that some provisional expedient was essentially necessary to obviate misrule and the annihilation of all order.

It may be thought unnecessary to adduce testimonies from the Hindu shasturs, that the land was the property of him who cleared and cultivated it, when in a code of justice it is inculcated as allowable in the sovereign to appropriate to himself any portion of the land or produce when required. If the former have any weight, the latter must also: and if the latter be contrary to all justice, and savour of despotism there can be very little room to argue the existence of any such existing right in the soil, in behalf of him who cleared and cultivated it. That was, and must have been long since, superceded; either then, it is held of the state, as the property of the king, or it is impossible the king can with any colour of justice take the smallest part of it, or its produce, in which he has no claim, whether of labour, or property. On such grounds we must adjudge the land to belong *actually to* the sovereign, legally or necessarily; as by his own acquisition is not the point, but by the nature of the consent which confers or admits his title to the superior title, power, and dignity. In him vested the administration of justice, the dispensation of mercy, and the direction of all that concerns the welfare and continuance and union of the whole body politic. He leads in war, he presides in peace, he declares the opinion of all classes, and in him therefore is vested the common property which he makes over at will, on requiring and receiving as his due, at each individual's hand, the tenth of the produce to meet the expenses of those duties over which he presides. What greater proof of this fact, than that the monarch, or his representatives in India, are bound by an understood agreement, not in any wise to molest or eject the cultivator so long as he pays his rent; that the cultivator, on the other hand also, is in like manner equally bound to pay the king's share of the produce without demur or dispute. The evils which are superinduced by despotism, are distinct from all such compact. This compact still subsists to the letter; whatever is demanded beyond it, is the effect of absolute rule; whatever is paid over and above the first stipulated amount, is yielded up from the enslaved

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cultivator, the more impoverished, the more oppressed; the more ignorant, the more enslaved.

Here then is the answer to the first question that the property in the soil was originally, and is still by construction, vested in the sovereign:—the people paying to him for the usufruct, a portion of the produce, earned from it by their own personal exertions and capital. The tenure is discoverable in those leases at second-hand from him, who is the first lease-holder, to a third party; he receives of him a tenth of his produce, but the king looks to the first occupant for his revenue, not to the holder of the land at second or third hand, as is the case in large zumeendarees: hence the ryot is charged with this tenth, over and above the king's dues, if at second hand; or more, if he be a miserable underling in a large zumeendaree.

The foregoing determines also the full amount which the state can exact with propriety, for a continuance, uninterruptedly; and the ryot, or cultivator pay without difficulty, or injustice: for the public revenues must be measured by what the people are able to give for any continuance, as well as what they ought to give; and the experience of ages has determined such amount to be one-fifth, that is, one-tenth for the administration of the Supreme authority, one-tenth for the support of the religion, or religious persuasions, whatever they might be. It is impossible that this rule should have been departed from, without some visible effect, for if the supreme power by any undue exaction or infringement of the compact, were to wrest from the cultivator the fruit of his own labour, his industry must necessarily slacken, the motive to energy be annihilated, inaction must inevitably ensue, and the conclusion bring about a complete slavery with all its attendant degradation; shutting out every prospect of justice, improvement or happiness. Is not this then the picture of Asiatic nations?—Is it not the true account of every Indian government? The compact by which they were first mutually bound in copartnership,—the subject and the sovereign,—is still nominally preserved in the tax that is levied by the one, the soil that is held by the other, with the understood condition that the one must be paid, the other cannot be taken away, so long as that tax is discharged; in the next place, the tax has been increased beyond the first equitable amount, the people have been impoverished, and their minds debased; the consequence has been, that a door has been opened to successive increases of every species of vexatious exactions, till the last proofs of deterioration are to be

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seen in the frequent and imperious necessity for remissions, which otherwise could never have been called for; these the British Government take to themselves great credit for allowing, compulsory though the grant be in reality; and this, notwithstanding the abolition of a great number of distressing imposts which were the last resource of the Mahratta farmers of the revenue. In reviewing these important preliminaries, a few points affecting the interest of the sovereign and the cultivator have been casually alluded to, which may be considered more at length after a more full account of the revenue system subsequent to the days of Akbar,—up to this last period we may perceive the working of three distinct systems;—first, the most ancient, allotting one-tenth to the priesthood, one-tenth to the king, both in kind, or in the aggregate, one-fifth of the produce; then one-sixth to the king, one-sixth to the priesthood, likewise in kind:—and these by an estimation of existing produce, part only being levied in kind, the greater part at a fixed rate of commutation: thirdly, one-third to the king, who allotted as he thought fit, one-sixth to the priesthood, or objects of religious care, of all persuasions. The first or most ancient practice, was a verbal agreement, (*Ookhtee*, Sunskrit:) or estimated inspection of the produce, called by the Moghuls *Nuzur undazi*, by the Mahrattas, *Nuzur Pahanee**: the second, introduced by the Brahmins, and inculcated in their law books and shasturs, was also indefinite as to the soil and produce, but rated at a certain measure or weight, and therefore both of these systems, the more ancient, and that substituted by the Brahmins, were liable to enormous and incalculable abuses: the third system, or Akbar's, introduced by Todur Mull, was a heavy tax, but well defined, and therefore gladly welcomed in comparison of that which preceded it: the two first left the ryot to the mercy of the officers appointed to collect the share of the prince; the latter annulled these offices, and acknowledge the ryot's claim upon the soil by occupation. It declared that the old compact between the ryot and the prince stood good, only differing as to the quantum to be considered as an equivalent for the usufruct of the soil, which Akbar fixed agreeablly to the directions of the Hindu law, at one-sixth for the king, one-sixth for the priesthood, collectively, one-third: 1st, upon a measurement, or land survey, rated at a mean of ten or nineteen years' produce. In these three systems we may trace first, The *gochurma* or ox hide of land; the *turub*, or plough of land. 2ndly, The Khundee of land,

* Ocular survey or estimate.

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the *moora*, the *mun*, the *karika* and so forth, that is, lands requiring a *khundee*, *moora*, *mun*, *karika** and so forth of seed to sow them, by which rule the produce was estimated, and the government share fixed. 3rd, The *beega*, on a measurement or actual survey by the rod, or *kathee*, which, even when imperfectly performed, precluded some abuses though it made room for others.

The preceding is a very cursory but I believe a faithful outline of the revenue system of India from the earliest period to the days of Akbar, in which also the proprietory right of the soil as intimately connected with the revenue, would appear to belong to the sovereign originally, and to have been held in copartnership with the ryot, the sovereign being as much entitled to his share of the produce, as the *ryot* to his possession of the land, the assignment or share of the produce for the service of religion, being altogether distinct from the sovereign's. Although there is a very general understanding amongst the best revenue servants of the British Government that a great difference of practice prevails in the management of every province of this empire, I hope it will not be thought presumptuous in me to differ so far from Sir John Malcolm, as to say, that far less attention has been paid to the first principles of the revenue system than they should have received, and much confusion and misunderstanding occasioned by crude and narrow views of mere local usages. It is a very gross mistake to suppose that in general things, or matters of universal concern, men will essentially differ from each other, whether in this or any country: it is equally repugnant to reason to suppose that in their civil or religious institutions any thing so entirely novel should be discoverable to which we cannot find a parallel elsewhere. The character of man receives an impression from his government, his religion, or his country; but the complication of all such causes superinduced in every age is capable of explanation by a clear, steady and patient investigation; there are certain marks which determine each cause in particular, and indications of their combination with others which may be brought to light by those who will be at the pains to distinguish them.

Had there been any plea of right for the zumeendars, the government of such countries would have been in reality a pure aristocracy, the monarch, an elective member of that body. The idea of such an aristocracy is perfectly visionary, even more so than the republics or assemblage of republics which were conjured up out of the provi-

* Dry measures for grain—the precise contents of which, are hereafter stated.

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sionary defences against misrule, oppression and annihilation: these both, the village institutions, and the zumeendars, or poligars, or feudatory chiefs, or petty principalities being both, the last remaining appliances of a people groaning under an accumulation of evils, entailed by wars, famines and exorbitant taxation. The first sovereigns, aboriginal Hindus, exercised their power with moderation, because they needed subjects and cultivators; their successors, coming in upon the train of those who had brought the soil under tillage, abused this office to the destruction of their people, and the destruction of the husbandman's first profits, his greatest motives to energy; the third party, the Brahmins as conquerors or interlopers, introduced a new and definite code, more grievous as to the amount, yet more certain as to the method; but this was of short duration, since there were no checks to its infringement, and it was soon followed up by the innumerable and cruel exactions which were modified by the wise and humane laws of Akbar. As the first sovereigns needed subjects and cultivators, so Akbar was driven to this measure by the review of the extensive conquests bequeathed to him by his predecessors. Had he not pursued this conciliatory course, he would have lost all his empire ten times quicker than it had been acquired by the Moslem's sword. This memorable revision of the financial arrangements of India furnishes us with a clue to the principle which determined the royal revenues, and the practice of its native princes. It discovers to us what the spirit of the government was, as reformed by Akbar, the effects of misrule exemplified in the conduct of the aristocracy, if we may so call it, subsequent to the days of Akbar, and the circumstances in which the country and people came under the hands of the British at the conclusion of the last war.

I believe it is altogether unnecessary to canvass the merits of those speculations which determine the rights of either of these parties from a few Sunnuds, (rescripts,) Ultumgahs, (investitures,)* or danuputrus, (charitable grants or gifts.) What we have now been investigating is long anterior to these instruments, and for such documents as ancient inscriptions on stone, or copper, they go no further back than the prevalence of the Brahminical system, none earlier than the 7th century: the greater part of them also are very questionable. I shall mention but one instance to prove this last assertion. In the first volume of Colonel Wilks's History of the South of India, he notices in a note appended to a translation of a grant

* See an Ultumgah very beautifully transcribed in the 1st vol. of the Statistical Tables with facsimiles of the donor's, Uzeezooddeen's, royal seal (*mootaliqu sikka*). The translation is also annexed.

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of land bearing date Kali Yoog 4517, of Salivahan 1349, (A. D. 1416) after the year (of the cycle) Plava, "that probably there has been some error in copying, or engraving one of those dates, for the date of this instrument he observes, differs exactly eleven years from the Deckan mode of reckoning which is precisely the same as that between the reckoning of the Deckan and of Benares." Now the fact is, this difference of eleven years was a scheme to conceal from the Mahomedans and Europeans the origin of their æras and mode of reckoning time, for which purpose the æra of Bengal and India north of the Nurbudda was thrown back exactly eleven years, the difference that then obtained 1791; when Mr. Davis published his Essay in the 3rd Vol. of the Asiatic Researches, and when Mr. Marsden wrote his Essay for the Philosophical Transactions, and now also at this present time. But this alteration was not so old as Akbar's father's time, and therefore could not have been inserted on a copper-plate, A. D. 1416. We cannot therefore be too cautious in drawing conclusions from such documents, as to the absolute rights of the cultivator in the soil, though the fact of the prince receiving revenue is to all intents and purposes sufficient to attest that right, which is consequent on co-partnership in the produce, both of the one and other party.

It may be thought an unusual argument perhaps to affirm that the very word revenue, implies rent; *Reditus*, a consideration issuing yearly out of lands and tenements, and is so understood by all European nations; even now the Spanish word is renta, the Italian rendita; if such then be its true import we are to consider it as a confirmation of the foregoing argument, and so also of tenure. Upon some one or other kind whereof all land is held, the tenths or tythes of temporalities, as spiritual offerings, were known to our Saxon and Norman forefathers as Dismes*, or Decimes. So we read in the statutes of a perpetual Disme in the 2nd and 3rd year of Edward 6th Cap. 35. See also Holinshed's Chronicle in Henry 2nd, fol. III. The Roman cultivators were taxed by the Decumian, publicans as they are called in Scripture, and they themselves were like the *kools* of India, Inquilini, or Coloni: (see Virgil Eccl. IX. Sec. 4,) our ancient Saxon agriculturists (clown or serfs) likewise, were of the same kind; the Spanish Alquilador, is the Roman inquilinus, or

* This is still the term used by the Portuguese in their conquered territories subject to the viceroyalty of Goa. See the subsequent part of this Essay under the head of Goa Revenues and Land Tenures; also the statistical tables of that province under the head of Foreign Resources.

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colonus holding his lands of another, for the usufruct of which he pays his liege lord the tenth, or whatever may be his share.

And thus having shown the principal arguments in proof of the understanding or mode in which the ryut or cultivator holds his lands, we may proceed to the consideration of the Revenue System of India, subsequent to the days of Akbar to the present time. From the foregoing we may divest ourselves of any fanciful views of the antiquities of village republics and meerassee tenures, such as they are accounted to be by the many industrious writers on this subject. We may treat the zumeendars and wuttundars as they are respectively officers armed with the sovereign's authority to collect and superintend his revenues, or his diploma to cultivate lands on certain conditional services, and with certain reservations or rents, to their superior. We may consider the ryot in the light of the first occupant who has tilled the soil, or holding it as a fee or feudum, in which are comprehended both Enam landholders, occupying on grants which are of the nature of that tenure which in English law is called Allodium—property indeed in the highest degree, though not an absolute dominion ; and that which requires the payment of a certain rent which was called *feudum*, to illustrate which we may adduce Cambden's definitions of these tenures." All lands and tenements wherein a man hath a perpetual estate to him and to his heirs, are divided into Allodium, and Feudum : *Allodium* is defined to be every man's own land which he possesseth merely in his own right, without acknowledgment of any service or payment of any rent. *Feudum* is that which we hold by the benefit of another and in the name whereof we owe service or pay rent, or both, to a superior lord, and all our land in England, the crown land which is in the King's own hands (in the right of his crown), excepted, is in the nature of Feudum, or Fee. For though many a man hath land by descent from his ancestors, and many others have dearly bought lands for their money, yet is the land of such nature, that it cannot come to any, either by descent or purchase, but with the burden that was laid upon him who had Novel Fee, or first of all received it as a benefit from his lord, to him and to all such to whom it might descend or any way be conveyed from him. So that there is no man in England that hath *directum dominium*, that is the very property or demaine in any land, but the prince in the right of his own crown. For though he that hath a fee hath *Jus perpetuum* and *utile dominium*, yet he oweth a duty for it, and therefore it is not simply his own. For he that can say most for his estate, saith

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thus; I am seized of this or that land, or tenement, in my demaine, as of Fee, and that is as much as if he said: It is my demaine, or proper land after a sort, because it is to me and to my heirs for ever, yet not simply mine, because I hold it in the nature of a benefit from another.

In like manner the zumeendars conform exactly to the Lords mesne, or landlords in old English history, that is, owners of manors or lands who by virtue thereof, have tenants holding of them in fee likewise, and yet they held of a superior who is called Lord paramount, and these mesne Lords or landlords, were perfectly distinct from the feudatory Barons, or Knights who held of the king by especial grants, on consideration of certain services and rents differing from the ancient usage above described. Should it be asked on what ground this assertion be made; I answer, that the latter tenure, as above described, of the mesne lords, was most ancient, for they might be mean men, or great landholders, with extensive property purchased, or acquired by their own industry and skill. These mesne lords, or landlords, might be of humble or high birth; their titles and the distinction of their manors were derived, from the very same circumstances as the kools of India, the coloni of Rome, or the alquilador of Spain*. This property might be vested in men of high, or low degree, for agriculture was so essentially necessary an occupation to a nation, that it was considered honorable to be a cultivator of ever so humble an estate, and the word manor in the strictest acceptation throughout every period of the past History of England, signifies land cultivated by the landlord himself, whereon he resides and which goes by his name; but the Baronial, or Knight's fees were held of the king as lands parcelled out after conquest, or confiscation, in reward of the military service, for which they were bound to attendance on him at call, to allegiance, for the monies or rents he might prescribe without any reference to the more ancient usage of the sovereign and the coloni, or *adscriptitiones glebi*. It was first instituted by the Roman Emperors, and the principle carried into the court of Charlemagne,—whence it came afterwards to be observed by the Norman barons; but before such novelties were introduced by the Roman Emperors, there was no such practice or feudatory aristocracy in any part of the world. After Charlemagne the whole of France was divided into fiefz; and arriers fiefz: that is, into fiefz or knight's fees and mesne fees, the former of which were immediately granted by the king for personal service in war, in reward

* Three distant institutions, purposely adduced.

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for distinguished bravery or attachment to his cause; the latter either the ancient fees of the coloni, or clowns holding of the king, which in the Indian Empire are called meerassees*, or kanjatchikars, or kools: or the tenants at will, *ooprees* as we call them in the Mahratta empire, occupying of the coloni, or kools, whether barons, or knights, or zumeendars, whether men of high or low degree, whether small or large proprietors. The value of the most ancient tenure was in England, in France, in ancient Rome, and so also in India, the most advantageous, and appreciable by all parties. The second was brought in by the fluctuation of fortunes, of wealth, in this or that country, by some causes probably independent of each other, but working to the same end: for when those who hold their lands on such indeterminate principles, are oppressed or burthened with excessive service or rent, they in their turn burthen their tenants in a like reckless manner, and the issue is that ruin, whereby the manorial rights of the barons and knights are entirely lost, and their lands revert to the true coloni, or agriculturists, who cultivate their own property for the general good of their country†. This has been the fate with the Manors of England, and the Fiefz of France, which have for the most part passed away from the families of those military barons, or knights, to whom they were first assigned, and reverted to the descendants of those who first received them at the hands of the Prince, or held them by his consent; who bestowed their labour on the king's land, who cleared and cultivated it, and paid as an acknowledgment for the right of usufruct, one-tenth of the produce.

* The office of the meerassee in India corresponds to that of the meersman of Ireland.

† Compare this picture with that of India, subsequent to the introduction of the zumeendaree system by Lord Cornwallis. When, however, the amount of Revenue payable by the zumeendar to the Government became fixed, no efficient measures appear to have been taken to define or limit the demand of the zumeendar upon the ryots who possessed an hereditary right of occupancy, on condition of either cultivating the land or finding tenants to do so. Without going into detail to show the working of the system, it may be sufficient to quote the opinion of Lord Hastings as recorded in 1819, when he held the office of Governor General of India. "Never," says Lord Hastings, "was there a measure conceived in a purer spirit of generous humanity and disinterested justice than the plan for the permanent settlement in the lower Provinces. It was worthy the soul of a Cornwallis. Yet this truly benevolent purpose, fashioned with great care and deliberation has, to our painful knowledge, subjected almost the whole of the lower classes throughout these Provinces to most grievous oppressions so guaranteed by our pledge, that we are unable to relieve the sufferers: a right of ownership in the soil, absolutely gratuitous, having been vested in the person through whom the payment to the state was to be made, with unlimited power to wring from his *coparceners* an exorbitant rent for the use of any part of the land."

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When we take into consideration the remarkable distinctions between the mesne fees, or landlords, in fact the kools or meerassees' or kanjatchikars' tenures and the baronial or knight's fees, we shall perceive that there has been as great a misunderstanding between disputants in India on this curious, important, and intricate question, as there is in regard of those who maintain that there is no sort of parallelism or congruity between the civil institutions and Governments and people of Asia, or India at least, and the rest of the world, or Europe it may be: for those who have spoken of knights' fees have considered the zumeendars holding in virtue of like tenures, little reflecting upon the rise and progress of the military service from its first devices in the courts of Imperial Rome, the Empire of Charlemagne, and the subsequent Norman conquests. They suppose the zumeendar's tenure old, as ancient perhaps as Homer's days at least, when he speaks of the ζημιυδαρ, though still they cannot rid themselves of the remembrance that there must have been some bounden service or rent paid after all by him who cultivated, to him who owned the land: they rob the king of his land, yet they cannot invest the zumeendars with his sovereign authority over the state. What is a stronger proof of this last fact, than, that the instant Lord Cornwallis had decided in favour of this anomalous practice, the zumeendars were denied, as in justice they should have been, (and even the advocates of the zumeendaree principle admitted) to call in the aid of the sovereign power, which was coercive, and could exact the fulfilment of the ryot's understood compact with his prince. The ryots actually refusing to pay, the zumeendars fell into arrears with the Government, their estates were sold to discharge the revenue, and in a few years this class of proprietors, stripped of all but an empty title, were involved in inextricable ruin, either in consequence of legal process, or the temptations which their newly acquired authority had held out to them, for the display of dignity, which their proper incomes could not support.

The zumeendaree system was in fact the creation of men wonderfully interested to confer the benefits of European institutions and freedom on a people, of which institutions and freedom they had neither studied the principles nor ascertained the practical bearings. Shall it be said that there can be any doubt, after this, that there are any persons who possess an absolute property, a plenum dominium, as the lawyers term it, in the soil? Can it be supposed that the king collects his revenue without right? the ryot or cultivator is oppressed and injured when he employs some portion of his labour

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and capital to his sovereign's maintenance? Can it be said that the zumeendars were like the barons or knights of imperial Rome or Charlemagne's, or our Norman forefathers' court? that those who held of the barons for an indefinite rent or service, the villici of Rome, or the feudatories' serfs, were entitled to the soil because they paid that indefinite rent or service which was held by their superiors of the king, on an equally indefinite tenure? It may be thought that a certain rate and a prescribed tenure implied a compact which no arbitrary power could annihilate, no conquest could obliterate. Thus when matters were pushed to the extreme, the old principle turned up,—the wisdom of the first most ancient rule, its universal acceptability and justice and advantage was seen through the mist of past ages; the principle by which the lands were measured and the king's share fixed by the patriarch Joseph in Egypt, or the Mosaic laws, was seen at length to be the grand and essential procedure of a wise and upright policy, a sacred and universal law.

Thus I have attempted to set the most striking facts of this subject, which illustrate the universal influence of a few simple principles, in a clear light. When we have brought ourselves to understand that this reasoning reaches to all subjects in the abstract, we shall be able to effect all the good that we as British and Christian subjects enjoy, but until then, we may propose a variety of remedies for which the body politic is unsuited; because we take not up the whole subject, either of the remedy or of the disease, suggesting partial helps and intermitting their application, we undo with one hand what we had done with the other, and wonder at the conclusion of our labours that we do not see the same effects here, which are seen in our own country, when in truth we have entirely overlooked, so to speak, both the capacity of the patient to receive, and the nature and the probable effects of, the remedies contemplated.

In the course of these researches I have discovered a variety of traces of some ancient tenures, indicated by the same terms and definitions. The hide of England, the plough, the oxgang, and so forth, are the same as the *Praj*, the *Gochurma*, the *hul* of India: the estimate by the quantity of the seed necessary to sow the land is a more recent method of accounting its extent and produce, which shows that the people had multiplied, and cultivation extended to those places which were not so fertile as to be reckoned with the better sorts. All these methods of measuring and valuing land were surpassed by actual measurement and classification, and this is that point in which the patriarch Joseph's conduct as a minister, evinced the judicious-

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ness of the prince's selection, and the wisdom and integrity of the delegate, for there could be no oppression where the principle of taxation was just and equitable to all parties, no uncertainty in the amount, where the extent of the land was declared and the quantity of the produce falling to the share of the prince and the subjects fixed by an act of mercy and prudence, attaching them to the soil and to their liege lord.

The natural predilection a man intertains for his country, to his people, and to his own patrimonial land, is the strongest incentive to industry and obedience; to this Joseph added another, a debt of gratitude which connected the people and their prince by one common tie. Do we then desire a model of a wise fiscal administration? this is to be accounted superior to all others, a model which leaves no room for injustice, because the land is appraised at its value and produce from actual measurement, assessed to its most ancient and correct rent, not allowing of any second or third agency, not permitting prince or priest to interfere with the subject, and therefore shutting the door against all such exactions which might induce after governments to appropriate to themselves the unjust extortions of their officers. Had it not been an equitable arrangement for all parties we should not have found the tenths or tythes so universally assigned to the prince. The effects of taking any thing beyond that amount as exemplified in different cases, is a corroborative testimony to the necessity of fixing some proportion of the produce, and the wisdom shewn in that very amount which was then appointed.

I have shewn in an essay on the primitive universal standard of weights and measures, that the land measure of the patriarch Joseph was the most scientific and ingenious that could have been devised even in these days of science, refinement, and experience. The length of the measure by which the ancient *αρουρα* was determined, was exactly the 72,000,000th of the earth's polar circumference, according to the last and most correct accounts of Laplace and professor Airy's computations from the trigonometrical operations conducted by the most eminent men in different parts of the globe; one hundred of such measures squared, or ten thousand square measures, are *exactly* equivalent to the four millionth part of the mean superficial degree on the earth's surface. Considering it to be an oblate spheroid, the proportion of the axes, is precisely that assigned by professor Airy, and the surface calculated by the very strictest mathematical rules: this furnished the Egyptians of old with a principle of measurement which has never since been departed from; it is the

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rule and standard of the superficial measures throughout the world. By imparting the system of measures and weights of the patriarchal times, Joseph obviated all possibility of uncertainty which precluded the inlet, in short, of so much fraud and injustice, that had it been overlooked, it would have been fruitless to fix any proportion or rent to be paid to the prince, whether in money, or corn, or fruits; but this was the criterion which stamped the intentions of the minister with an intelligible sign to the poorest ryot, or cultivator, that he might expect justice, and must acquit himself of his duty. What greater obligation indeed can we lay on any man to do what is right, than to set him the example; what pretext can he advance, when all that could be taken from him was vested in him again with the glorious example of a just and merciful prince, to observe his part of the compact in the spirit as well as the letter? This was Pharaoh's emissary to the heart and understanding of his subjects, this was his mandate to his people. Keep your soil, pay your rents, love your king and defraud no man, neither superiors nor inferiors, since "he who might the advantage best have took, found out the remedy," to bind you in allegiance to him in dealing with you according to your necessities, since he left no measure, not to the very standards by which his corn was to be meted, his rents paid, or the lands ascertained, without a perfect and intelligible rule. Let us look closely into the administration of Noorshirvan and Akbar, and we shall be compelled to admit that some such policy was the most prominent feature in the reign of these illustrious and good monarchs. The eye can rest on no such cheering objects as on these three: the governments of Joseph in Egypt, of Noorshirvan in Persia, and Akbar in India; their names will be imprinted in the last institutions of this globe, for the motive of all was the same, and being substantially excellent will outlast all which are defective.

We should search in vain for any thing superior to this in the annals of Rome. Greece indeed it would be needless to instance, for the revenues of Greece were entirely drawn from foreign sources. So long as Rome was a republic, it preserved the same character of simplicity which marked the institutions of all other governments which had gone before it. When the form of government was changed, the Emperors laid the foundation of a system which by slow degrees deprived the subject of his lands his liberty, and his integrity, substituting a military despotism in the persons of those servants who had distinguished themselves in the aggrandizement of their country, or the exaltation and defence of their masters. What had been paid

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in money was in the days of the Emperors received in kind; the uncertainty of the measure by which it was collected, introduced a degree of fraud and oppression that could find no palliative but in excessive remissions to the people; and the utmost severity of the imperial displeasure towards the prefects appointed to realize it. The same results appeared in the time of Theodosius which we now witness from a like train of events in India. When we study the state of the revenue in Rome, before and after the Emperors, we are in a better capacity to pronounce on the probable condition of India, if the present revenue system continue in force. There and then, as here, the taxation was changed into a direct demand:—the amount levied was arbitrarily determined at stated intervals of fifteen years, by a new appraisement of the lands and produce,—whether they were newly or formerly cultivated, and the requisitions fixed according to the supposed wants of the state. Being indefinite in the amount the apportionment and collection of these revenues required a multitude of officers and agents, and therefore induced a far greater number of inquisitions and a less exact and effective degree of supervision and justice; the consequence of such changes, added as we have above stated to the receipt of the revenues in kind by an uncertain standard of measure, effectually ruined the agricultural interests of the Empire, the greatest and only resource of the state, the sole safeguard and nursery of that integrity, freedom, and political strength, which might have enabled it to withstand the tyranny, and lawless rapacity of the Emperors or the fierce inroads of the barbarians of the north. The very same financial system, has recently been bequeathed to the British Government by its predecessors in power,—the same misrule has produced a like state of society and political distress, which may be traced through all its ramifications and workings from the earliest period to that epoch when Akbar arrested the hands of the extortioner, and thence onward to the day when these sacred duties devolved on a great and Christian nation, actuated by no feelings but that of justice, and no aim but that of the welfare and improvement of those they had conquered.

It would be impossible for any dispassionate and diligent inquirer to rise from the study of the institutions of antiquity, whether of Egypt or Rome, or the infant kingdoms of Europe under the government of their earliest monarchs, and not observe a close, and very striking analogy to all that characterizes the measures and issues of Asiatic finance. What has determined the slavery or liberty, the

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change for the better, or the worse there, individually, or in connection with other things, has wrought the same consequences in India, although it is not to be doubted that climate and extraneous causes and universal law, may also have superinduced modifications which are to be distinguished and taken into account.

So far as they are correctly apprehended and compared, the parallelism will be found to hold good, whether the tenures by which the soil is held, or the rent paid, conform to the more ancient practice, or to that subsequent to the institutes of imperial Rome :—when however the prototype is lost sight of, the originality of the joint property or interests of the cultivator and the sovereign, in the soil and produce, is usually confounded with the feudatory institutions of a military code, perfectly foreign in its every feature to that on which it was grafted. Hence initiated an anomalous system throughout Europe, which embarrasses the civil code with a multitude of legal difficulties surpassed only where anarchy has blotted out all evidences of earlier institutions. In many countries despotism still continues to direct attention to the obligations we owe to the observance of those more ancient principles for every present security of right and property, since every change in civil and religious security, which has supervened elsewhere, has arisen out of a disregard or misapprehension of the relative position of the higher and lower estates of the body politic. And although some amelioration may be anticipated from any improvement in the revenue management, it must be accompanied by a corresponding consideration for the moral instruction of the people, which without the groundwork of *sound* religious principles,—something indeed very superior to that now put in operation, will only call forth discontent, alarm and opposition. And not in a less degree must such improvement have reference to those ancient and simple institutions, which, Janus-like, must ever look equally either way, in the spirit of power and justice, to the prince and to the people ; in the spirit of wisdom and conciliation, to past experience and future responsibilities.

It is essentially necessary moreover that in every such inquisition of proprietory right between man and man, or between the Government and its subjects, the most full, equal and impartial administration of justice should be enforced without any reference to caste or creed, or rank, or prejudices, forasmuch as with one and all of these, we, as Christians, have nothing to do; they form the strongholds of idolatry, and will foster and perpetuate that idolatry so long as there is a weak or wicked man to succumb to them. Can it be

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asserted that any good can come of education, when we pull down with the one hand what we raise at vast labour and expence with the other? The laws of a country are to be respected indeed so far as they have the impress of law; that is, as they are uniformly just, influential, and operative; but if defective in any of its requisites they must discredit and ruin our cause; the whole must be received, the code of law, in its entire spirit, or abrogated altogether, should it be found to be at variance with the principles of universal equity, or customary usage. But how can the Mahomedan be reconciled with the Hindu, or the Brahminical code with those laws which are the birthright of the aboriginal tribes, the number of whom, lost insensibly in the lower orders of the Hindu castes, exceeds that of all the more civilized tribes put together; or how can the strange and ill compacted elements of these antagonist communities concur with a Christian Government, or co-operate in the work it has in hand for their protection? By the confused interpretation and intermixture of laws, observances, and institutions that have no common foundation, and no common object to accomplish, the support of one, to the prejudice of another, could only be palliated by the most perfect acquaintance with the defects of those abrogated, and the superiority of that which supersedes them; and this can never be learnt till all are well understood. But since this is impossible however desirable, there remains but one alternative—an alternative recommended as much by reason as by humanity. Let every imaginary distinction be set aside, religious freedom have full course; and assuredly education, political liberty, equal justice, not to mention the higher and infinitely more powerful results of Christian instruction, will change this Pandemonium of tyranny and superstition, into a field of intellectual, moral and physical energy: effecting a reformation of which the most sanguine could not form a just conception, and probably no other policy could induce: then, only, will the Government and the people be equally secure in the enjoyment of peace, exempt, so far as prudential foresight can avert them, from those frequent calamities which defeat our mightiest efforts to introduce a better state of things.

The historian of the Decline and Fall of the Roman Empire has ingeniously described the right of property as justified by the ancient right of prior occupancy. Arguing from an individual case, he has slurred over the subject of those rights which involve the labour and occupancy of many. The individual who is indebted for his security to the neighbourhood and protection, or countenance of another,

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is mutually bound with him to acknowledge a common right. The step from the first combinations of individual strength, or skill, or sagacity, is imperceptibly advanced to the great social community which either as a monarchy, or republic, or government of whatever sort, concludes all its members in some specific common obligations. He who tills a field for the support of his own family, and he who hunts down the wild animals that would destroy its produce, or he who rears the cattle that may contribute to assist at the plough of the cultivator, must have a joint interest, mutually obligatory on all, to look to, and preserve; this, in the embryo, is the principle of a monarchical government which demands allegiance of the subject, protection of the monarch, and mutual co-operation of all the members to their common preservation and happiness. Whatever excludes this idea, overlooks the design of our creation: it supposes man born for himself alone, and contradicts the state of aggregation in which we every where find human beings. As it is impossible he should accomplish all things by his own individual handy work,—as we find that every thing, great or good, is effected by the co-operation of the many,—as he possesses nothing but what his own hands have earned or made, or his fathers and donors have bequeathed to him, he enjoys in some sort the fruits of other's labours, which belong as much to his fellow-men as to himself. He benefits in common with them, by their experience and counsel in the safeguards they have reared about his dwelling, the security he enjoys from the violence of the elements, the ravages of the beasts of the forests, or the injustice of man. In that sense he is bound to preserve and transmit this common property to others, and can no more be said to possess *absolute dominion* over the work of his own hands, than the monarch over his people, or the individual himself, over the laws of society of which he is a member. In the first instance the acknowledgment is made to the first great Author of good, in the next it is made to his delegated representatives, to that ruling authority, whatsoever it may be, or in whomsoever vested, which exercises the last offices of mercy: all that is required in both cases is, that the effort of the individual shall not be actuated by a selfish motive, that he shall have for its eventual or remote object, howsoever we may state the ostensible design, the general good of society; whether to lighten the labours of others, alleviate their necessities, or concur with them to some thing useful to the whole collective body: self-preservation instinctively instructs us in difficulties; but self-love narrows our minds, and draws us aside from the wisest counsels of this instinct: it cannot

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therefore be supposed that the latter is competent to determine impartially where the rights of property begin and end. Exclusive or absolute property in any thing was never intended, nor is it compatible with our well-being. In the monopoly, or the despotic government, the axiom is indisputable, and the consequences are seen and deprecated. In the more minute and indistinct questions of individual property, it is only less perfectly understood, and considered, because it requires greater penetration and patience to discover its origin, to watch its transition from the first owner to the more perceptible body compounded of many such owners. Without going to Rome and Greece, we may learn the principles and constitutions of such societies in our own Scriptures; there the subject is not mixed up with irrelevant matter, the progress from the first simple family to the mighty nation is painted with unquestionable fidelity; in which form all are considered as pledged to one compact—a compact which, had war and evil never entered into the world, would from the beginning have made all men the happy servants of one only master and protector.

Should the reader turn to Colonel Wilks' laboured Dissertation on the landed tenures of India, he will perceive that the idea of simple uniform absolute dominion is the great foundation-stone of the visionary fabric on which he and other advocates have reared the exclusive rights of the cultivator in the soil. The nature of the Roman Government under the Emperors, and before that time, is so different in principle; the one avowing no established rule, the latter following in the old beaten track of antiquity and prescriptive usage, that we are not to wonder that the inference thence drawn, without adverting to these distinctions, should be radically unsound. Glancing at the whole range of history, we shall find the magnitude and weight of the institutions of Imperial Rome very inconsiderable in comparison of those which preceded them; those were founded on justice and wisdom, these were the produce of a despotism, which was seen to progress in the bud, the flower, and the perfect fruit to the eventual supplanting of the parent stock.

From the momentous epoch when the virtuous Akbar investigated the mechanism of the great financial and political engine of Indian government, a new æra commenced: a diligent study of Akbar's and his father, Humaioon's, history, will shew, to quote Mr. Hasting's words, "where the measures of the present administration approach to those first principles, which perhaps will be found superior to any that have been built on their ruins; and certainly most easy,

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as the most familiar to the minds of the people, and when any deviation from them may be likely to counteract or to assimilate with them."

Akbar associated the Rajah Todur Mul with Moozuffur Khan. Considering that the round of the seasons corresponded to the lunar cycle of nineteen years, these ministers estimated the produce of the lands from all the accidental diversities occurring within that period: having defined the land measure and classed the land according to its fertility, they concluded the average of the several kinds to be of a middling quality and charged it with a rent to the king, of one-third the gross produce; they imposed on the people a tax of one per cent., for the canoongoes*, who were bound to see the ryots, protected from exaction, and the *kullees* or crops from being embezzled or plundered, as public functionaries or executors of their master's royal prerogative. They procured the remittance of a variety of vexatious taxes, "which used to equal the quit-rent of Hindustan," thirteen of which are particularized by Abool Fuzul; besides all those articles which the natives of Hindustan comprehended under the description of syerjekat. He also granted reliefs for distress and a general indulgence to all husbandmen to suit their own inclinations as to the discharge of the revenue, whether in money, or in kind, by estimation or by agreement, according to the various tenures handed down to them by their forefathers; they ascertained the current prices of every article of cultivation, but here unwittingly overlooked the fluctuation in the value of the precious metals. It is admitted by Abool Fuzul that the settlement of the revenue made by these ministers, was less than that of preceding years: the rates of collection were regulated every ten years in advance by an average struck of the ten that had gone by; that is, in the first instance, from the fifteenth to the twenty-fourth year of Akbar's reign. Such was the revenue system of Akbar, as it affected the land: the duties on manufactures which had been levied on the old principle of the tenths, or *asheree*, were now reduced to five per cent. Well might the people of India speak his praise, who knew so well the principle of a wise and good government: his moderation would be known to the remotest hovel of his dominions; he reigned twenty-five years after the first decennial settlement was concluded: the language of his minister was the dictate of the master, "Let him strive to increase cultivation and population, and gain the hearts of all our subjects by a faithful per-

* Revenue officers.

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formance of his engagements, and let him consider it as his duty to befriend the industrious husbandman." When we compare it with the Hindu revenue system, we may judge of the foresight of those who reformed the existing practices at the time of his elevation to the throne. It abolished all those complicated burthens which required a certain sacrifice of much time, and labour, and expense to enforce; it dispensed with compulsory services; it was impartial, certain as to the measure, both of land and corn, and money. It was certain also, as far as such knowledge could be expected, as to produce; and the rates of commutation at which such produce should be received. It disturbed no original rights of property, neither of the sovereign, nor his subjects: it taxed no commodities, or articles, but what entered into the daily use and consumption of the rich and poor; whereby it did not exasperate, or drive the great landholders to oppress their vassals or cultivators: it offered neither discouragement to one sort of cultivation, nor encouragement to another: it left no room for injustice or fraud, either in the realization, collection, or payment of the revenue; it left no plea for murmurings by the introduction of novel, or the abolition of established usages; each cultivator or landlord being free to pay, according to any method he preferred. It held up the conduct of the monarch, as the example to his ministers, and to the people at large: finally, it convicted the sacred law of the Hindus of being practically unsound and nugatory; that it was so far good only as it coincided with the previous usages immemorially established by the aboriginal monarchs of the country; of all which results we have even yet abundant proof.

As it might be thought of this impartiality or equality of taxation, that it was essentially defective in principle, it is to be remembered that the landlord can cultivate no more than a certain moderate quantity on his own account, with any degree of advantage: if any chose to cultivate more than he could attend to, his charges would in the long run exceed his profits; it therefore held out no encouragement to an avaricious landlord, and kept in view the prospective interest of the king and the cultivator. Again, the effect of an excessive taxation of the rich, would have been to hold out a premium for a still greater degree of exaction from the underlings of the great landlord; the consequences would have reverted to the state, and all parties would have been sufferers. In this is the striking difference between that direct taxation of income in European countries, where the contribution to the expences of the state would

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bear very unequally and grievously on those who had small property, compared with others who were rolling in wealth. In all direct taxation the payment must be regulated on a very different principle to the land tax of India: the introduction of a decreasing tax, proportionate to the diminished extent of each man's property, would have had the effect of an agrarian law, and destroyed that middle, certainly that higher, class of landholders, which interposed between the monarch and his people; which gave as much confidence to the one as to the other, in all concerns of general interest and importance. Akbar found these great landed proprietors; he found also others, with smaller estates. He did not confound either body, he did not deprive them of their rights, or in any way implicate their destruction in his financial measures: what he took in hand he administered to, as a faithful and wise umpire, and dispossessed no one of that inheritance which his fathers had left to him, however acquired.

What a contrast to the zumeendaree system of Bengal, a class created by Lord Cornwallis, and crushed almost in the birth? the offspring of an illegitimate parentage, it shewed but feeble signs of life, because it had no claim to that ancient native birthright which distinguished the great landed proprietory class of Akbar's empire; it was impossible that it should have come to honor without the vital qualities of a pure unquestionable origin, in the country to which it was proposed; it had therefore no supports from within, and the government conceiving it imprudent to invest it with any, to which it could not assert its claims, the ryots witheld their rents from the zumeendars, thus involved in inextricable difficulties and final ruin. The lesson to be taken from Akbar's measures is this: either not in any wise to innovate, or to propose and carry into effect the most complete reform of abuses, whatever may be the first apparent loss to government.

Amidst all the confusion that followed upon the disorganization of the empire in the two following centuries, by the rise and predatory devastations of the Mahrattas, and various aboriginal tribes, the whole of the provinces subject to Akbar's sway attest the excellence of his plans, by the observance of many usages which he enjoined or enforced, wheresoever they have not been superseded by those of the Mahrattas; and it is no less remarkable a commendation, that this system was extended by Mulik Umbur to other parts of India where the name of Akbar had only reached by report. The great outline of Todur Mul's and Moozuffur Khan's revenue management was

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carried into the Dukhun and Konkun, as well as over the southern provinces of Telingana, where the Moghul authority had never yet been established. In questioning natives regarding the financial settlement of this enterprising and sagacious Abyssinian, I have been told by all those intelligent landholders who have preserved any records of their estates, that the principle was in every respect the same, and the consequences have been acknowledged with equal gratitude, as they are now seen to have been elsewhere overlooked to the manifest injury of the agriculturists.

Here it may be proper to note, that the system of the Brahmins had given occasion to many offices which did not stand forth so prominently in the days of the Moghul emperors, prior to Humaioon's accession. Those in truth were the days of terror and extirpation to all the Hindu princes and dignitaries, whatever went forward was unperceived, and unheeded, because the Moghuls were too much occupied with conquest and conversion,—the people too much engaged in providing for their own safety, to protest against the creation of a new class of intermediate agents professing, as these did, the assistance and protection of the lower orders. In the vigorous administration of Akbar, they were passed over in silence, but at his death, they re-appeared on the stage, and have played no inconsiderable part in the turbulent reigns of his successors. Such were the Dessaees, Deshmookhs, Deshpandees, and so forth, of whom we have no account in the revenue records of the first Moghul emperors, not so much because the Moghuls contemned the Hindu institutions and laws, but because these agencies had not then come in to full operation, as since.

In the traditions of a great empire we should probably lean in the absence of positive and explicit evidence to either effect, whether it had once formed one great and uniform monarchy, or were a government compounded of innumerable small republics, to that opinion which the present state of things, the course of past events and the analogous circumstances of other countries, might lead us to believe least exceptionable. The governments of Asia are all despotic: every trait of these governments answers to this portrait. The invidious division into castes, the absence of all judicial proceedings, the castle crowned eminences of India, the courtezans, and the pageants, the courts, the palaces, and the desolate environs of the prince's abode,—all betoken a despotic rule which ill suits, nay, could never assort or be compatible with republicanism in any shape, though it may well agree with a spirit of faction ready to break out as opportunity

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permitted. Thus the true master-key to the whole political constitution of India is to be tested: for the institutions and laws which cannot by any force of reasoning or construction be explained on the hypothetical principles of their advocates, institutions and laws in fact, which on such principle, have neither now, nor even at any time been paralleled, are at once rendered intelligible when viewed in connection with that despotism which has subsisted in the remotest ages, and still prevails throughout Asia. It is of little consequence for what objects the offices or usages which have grown out of an arbitrary government may have been contemplated. A wise prince, or a just legislature, may devise a variety of expedients for determinate ends, and to that effect create offices or establish laws: but a tyrannical master can have no such ends in view. The despot cares not for eventual consequences, he employs expedients for an immediate purpose, and those who are thus subjected to him, resort to any measures which may counteract such purpose, as it is supposed to be prejudicial. In this way arose the village communities, those little republics, as they are termed by Sir Thomas Munro, and Colonel Wilks. "Though probably not compatible with a very good form of government, they are an excellent remedy for the imperfections of a bad one; they prevent the bad effects of its negligence and weakness, and even present some barrier against its tyranny and rapacity*." Could any more conclusive argument be proposed as to the true origin and character of the village institution than this?

Such imperium in imperio, is the most important feature of the disorganization of all good government. There are other indications of it; they are less palpable indeed, but less obnoxious to reform. In the dismemberment of that ancient universal monarchy of the Indian empire, which is the theme of their legends, their mythology, and their traditionary tales, the four great ministers of the state, the *gujaputee*, the *ashwaputee* the *chutraputee*, and the *sriputee*, the master or ruler of the elephants, the commander of the horse, the royal standard or parasol-bearer, and the commander of the infantry, usurped the empire as well as the authority of their master, and parcelled it out between themselves; the former, occupying the North of India, and his capital, Hustinapoor, or Delhi: the second, Rajpootana, Goojrat, and Malwa, his capital at Nehrwalla, the modern Puttun: the third, the Dukhun, or Maharashtra, and Telingana, his capital Tuguru or Deoghur, the modern Dowlutabad: the fourth Kurnata and Draveed, his capital Anagoondee. Those who

* Elphinstone's Report of the Dukhun, and the territories of the late Peshwa.

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have been employed in any diplomatic capacity, and deciphered the long inscriptions and titles on the enormous seals attached to the native princes' letters, will perhaps have noriced the use of these epithets or titles ; their allusion to these very ancient ministerial offices, however, may perhaps not at first have occurred to them. All the most valued titular dignities of the great princes of India may be classed under one or other of these heads : and from such data, we might infer, independent of traditionary tales, and legendary poetry, that the boundaries and locality of each minister's government was pretty nearly as above stated. Many other gentlemen have received the same account of these from the natives in different parts of India : Dr. Buchanan in Kurnata, Colonel Tod in Rajpootana, Mr. Sterling in Cuttak, and Colonel Mackenzie in Mysoor and Draveed. There is a considerable difference in the places assigned as their seats of government from that which I have given above ; but that they really did exist is highly probable. Mr. Sterling notices a highly curious passage in the Ayeen Akberry. Speaking of the game of cards, Abool Fuzul observes : "This is a well known game. At first the pack consisted of twelve kings, with eleven cards, dependant upon each, in the following order ; 1st, Ashweput, the king of the Horses ; he is painted on horseback, like the king of Delhi, with the chutter, the alum, and other ensigns of royalty. 2nd, Gujput, the king of the elephants, is mounted on an elephant, like the king of Orissa. 3rd, Nurput, the king of men, like the king of Beejapoor ; he is seated on a throne," &c. The chutraputtee is not mentioned. Hence it is probable that the remembrance of these ministerial dignities was handed down from age to age, and familiarized to every one by the game and pictorial resemblances. In another part, Abool Fuzul says : "the insignia of royalty are four in number, the aurung, or throne ; the chutter, or canopy ; the sayuban, or aftabgeer, a species of umbrella ; fourthly, the kokebah, or stars of gold and silver :" it is probable these were under the custody of the four dignitaries of the empire.

This dismemberment was followed up by further disorders, when each of the nobles or chiefs possessed himself of as much as he could grasp within his reach, and India, which once acknowledged one law, was subdivided indefinitely into petty lordships and states having no common interest, or so much as intercourse with each other. Hence the provincial dialects, which derived from the same language, could with difficulty be recognized in the mouth of the poor peasant, as having any sort of relationship to each

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other : anarchy, the natural jealousy of their chiefs, and dissuetude of communication, precluded a return to the former order of things, though there had been a native prince of sufficient talent and bravery to bring together the fragments of his ancestor's dominions. In this method, the mighty fabric crumbled down, of which we can only now trace the foundations and the disjointed remains : the distinctions, or curious workmanship of some of these, enable us to recognize the splendor and vastness of the ancient structure. In examining some curious Mahomedan buildings at Ahmedabad, erected by the Moghul imperors some three or four centuries ago, I observed that many of the mosques, serais, and ruozus, or mausoleums were constructed from the remains of former Hindu edifices of like solidity, style and beauty : wherever they had fallen down, it appeared that large fragments were ornamented with the same minute and curious carving and figures which are to be seen on the wrecks of the ancient cities of Madura, Nehrwalla, Anagoondee, Gairsopa and Chundrawuttee ; also in a more perfect state at Aboogurh. These fragments were smoothed and cut, or fashioned by the Mahomedans with the Hindu carving inwards, and so might have been altogether concealed from view till the lapse of ages brought them to light, and showed whence the Mahomedans had got the original pattern of those splendid and graceful buildings which were the pride of their Sultans. In my subsequent residence in India, in Belgaum particularly, I likewise observed that the Brahminical temples, and the forts built under worshippers of this persuasion, are constructed of remains of former Boodhist temples which were not treated quite so unceremoniously or indignantly by the Hindu architect : they are seen built up, or thrust in, pellmell, indifferently with any other materials, though how far this practice may go back, is hard to say : for one ancient building consists on the ground floor of a curious hall, or temple of black granite, supported on four massive pillars, of most curious and beautiful workmanship, surmounted by a flat stone roof : on taking down a broken pilaster on the outside to make some repairs, it appeared that the walls surrounding the principal chamber were hollow, or rather filled up here and there with blocks of stone, and old mutilated pillars, thrown in at random, to stop up the vacuities : where the outer face of the stone was altogether plain, the interior presented a number of mouldings, ornaments and figures, not running parallel, but at an angle with the edges of the stone, which the stone-masons could scarcely have sculptured for the mere

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amusement of throwing away. The date of the construction of this, and some other contiguous buildings, appears, by two inscriptions in Halla Canarese, in my possession, to be A. D. 1201; ninety-two years previous to the first irruption of the Mahomedan armies into the Dukhun.

These particulars may be considered as characteristic of the practice of the various sects and nations who have successively occupied the political arena: the Hindus, whether Jyns or Brahmins, built in the old materials of the buildings they had destroyed into their new edifices, without concealment or symmetry, being altogether indifferent to appearance or opinion: the Mahomedans employed them also, but concealed their antiquity and the place whence they had gotten them, squaring all to their own notions of propriety, and solidity. Time has thrown down this ornamental facade, and discovered the idolatrous memorials of a by-gone race, known only from tradition: such are the parallel circumstances of the magnificent architectural monuments, and the civil institutions of India, as a component part of Government, such their successive modification. In the beginning of Indian monarchy, these fragments were all disposed in one uniform method, in their proper places; standing out, some as humble unpretending decorations to a great and magnificent work, embodying thousands, which individually, attracted the admiration of the passenger, though they formed a very insignificant place in the general structure, now only seen in ruins.

The whole of the petty states and all the extensive governments into which the country is divided, were anciently compacted together in this very manner: they all retain the character, more or less discernible, of the first architectural design: to understand them we must consider them in such assemblage, and then in the successive changes they have undergone under workmen of different tastes, and various skill: the result will be a conviction, that no advantage can be anticipated from a cursory, nay even the most scrupulous survey of existing usages, or those which have supervened since the Mahomedan or the Mahratta conquests, without adverting to their original objects. In their spirit, all the parties who have been engaged here, are as much opposed to each other, as the republican officers and Emperors of Rome, the Norman barons, or the Saracens of the west, to the Jewish law-giver; but they could not, indeed they dared not, set aside what they found ready to their hands: they departed not from that very course which has occurred in all other political changes throughout the whole period of history, in

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every other portion of the globe. The seeds therefore of that anarchy, the hotbed itself in which they were sown, a despotic monarchy, was coeval with the first constitution of Indian government. When the season came for each to spring forth into life, they attracted little or no attention, being lost in the superior grandeur, and stateliness of the old institutions; but in process of time they have so completely overgrown the scattered ruins of the first monarchy, that it is with no little difficulty we can be brought to believe they are not the constituent and essential ingredients of the government itself.

Such, whatever be the present condition of the petty states, the Hindu dignitaries and customary officers of religion, revenue, and police, was their origin; and we see them starting forth into publicity as the power of the monarchs was withdrawn, or the original character of the first government was obliterated, or forgotten. There is no mention made in the very old grants of land, discovered by our countrymen, of Meerasdars, Zumeendars and Wuttundars*, no long lists of officers as at present, pretending to rights in the soil and revenue, independent of the pleasure of Government; no village communities, nor peculiar rights vested in the Patels and Barabulotedar†. All the princes and chiefs and landholders there, avow their allegiance and duty to the one great sovereign of India, all hold their lands of him, and carry on every measure in his name; they all admit their obligations to pay the just rent or revenue required by their sovereign, who cannot dispossess them of lands once given away, except in the event of treason, or rebellion, or some flagitious crime punishable by confiscation of goods: then the land reverted to its first master, as it does every where else, which is a sure and unanswerable proof that the first property in the soil was considered to belong to him, who exercised the chief authority in the state; the prerogative of confiscating property or showing mercy belongs to that power alone which occupies the throne, as the vicegerent of the all-powerful Being to whom all are subject. Show then where these prerogatives reside, and it is easy to show also whence the sovereign authority emanates, and in whom the first right of property was vested.

Further, as we descend in the annals of history, the Hindu law and written records of past events still observe the most profound silence regarding any rights in the soil, but those above stated.

* Hereditary proprietors, landholders and freeholders.

† Village fiscal or mayor, and corporation or officers, subordinate to him.

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The zumeendar's, or Government officer's claim to service, but to no share in the revenue or land; the village community is still imperceptible. At length, at the period of Akbar's death, the seeds of rebellion break forth anew, the crafty agents of the present Hindu superstition foment dissensions by every method they can devise; the people recur to every pretext they had seen in operation in the great contest of the higher orders, and finally established the village communities as a remedy for disorders, and a security against their oppressors. The short-lived rulers, their ministers of a day, gladly accepted the engagement of a revenue settlement from the village, collectively with the patel and village officers at their head: they were content to resign all those police duties into their hands, which devolved on the state, and could no where be so well attended to as by the peers and neighbours of the litigants: it left them at leisure also to abandon themselves to every species of debauchery, to pass their days either in apathetic indolence, or conquest, or plunder: whether the village *republics*, as our countrymen are pleased to style them, had any real existence before Humaioon's time, is extremely doubtful; that they are far from being universally prevalent, even now, is a sure indication that their origin is comparatively recent: and so also of the Meerasdaree, Kanyatchi, Junmum*, or such like rights, as they are understood to be held by the natives, and by many British revenue servants: for all these originated with the same order of things, and at the same period.

We come now to a new æra in the revenue management of India, subsequent to the death of Akbar at Agra, in 1605, after a glorious reign of forty-nine years and eight months. The partition of the Dukhun between the Nizamshahee and Adilshahee princes, the former having their capital at Aurungabad, the latter at Beejapoor had been the means of introducing a distinct system of revenue management into the respective territories possessed by each state, which may be very briefly and easily explained. The Dukhun which A. D. 1293, was wrested from the Mahratta, or Rajpoot princes of Deoghur, in the course of fifty-three years, became a distinct sovereignty, entitled the Bahmunee, commencing in the person of the first king Allaooddeen Hoossain Gungoo Bahmunee, which may give some general idea of the rapidity and extent of the Mahomedan conquests. In the course of the next century, A. D. 1490—1507, the Dukhun was still further subdivided into three distinct sovereignties, Beejapoor, Ahmednuggur, and Golkonda. The first

* Several terms significant of Freehold perfect and unalienable.

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was called the Adilshahee, the second the Nizamshahee state; the first King of the Bahmunee dynasty, shortly before his death, had distinguished the Dukhun into four principal divisions: the district including the capital, extending from Koolburga, as far west as Dabhol; and south, as far as Raichoor and Moodkul, was placed under Mullik Seifooddeen Ghooree: the tract comprehending Choul, or Chewul, on the sea coast, and lying between Jooneer, Dowlutabad, Beer, and Peitun, being the territory of Marhut or Maharashtra, the king committed to the charge of Mahomed Khan the son of his brother Ameer Alee; on the north-east, Mahoor, Ramgir, and a portion of Berar were entrusted to Sufdur Khan Seestanee; and Beedur, Indour, Kowlas, and the districts in Telingana, were assigned to the charge of Azim Hoomayoon, son of Mullik Seifooddeen Ghooree.

The conquests of the Tatar princes, the descendants of Timour, and Moghuls in the Deccan were too rapid to be of any long stability. None but Akbar, of all these princes, had given the least attention to the interests of the people. Those possessions which had been acquired by Allaooddeen Khiljee, of the second Tatar dynasty, A. D. 1293-4, were lost to the empire of Dehli by the revolt of the Emperor's dependents in the reign of Gheiasooddeen Toghluk, of the third Tatar dynasty, in 1347. The new and independent government then set up in the Dukhun, was ruled by the Bahmunee dynasty to the year 1489, or 1490, when Adil Khan assumed the insignia of royalty at Beejapoor: at the same time Mullik Ahmed established himself in the sovereignty of the territories under his charge by the title of the first king of the Nizamshahee dynasty. Kootubool Moolk, who exercised the chief authority in Telingana, assumed the style and authority of an independent Sultan shortly after these usurpations, as the first prince of the Kootub Shahee dynasty: the fourth division of the four original Tatar divisions of the Dukhun fell to two other ministers of the Bahmunee kings, who were styled Ummad Shahee, and Bureed Shahee kings: the first prince of the former was Ummadool Moolk, the then governor; the first monarch of the latter, Umeer Bureed a slave who had married into the family of the Bahmunee kings. The Ummad Shahee kingdom was conquered and re-annexed to the Nizamshahee state by Mortiza Nizam Shah; and the Bureed Shahee was conquered by Akbar's troops. Captain Grant Duff, in his History of the Mahrattas, has entirely overlooked the geographical limits of the governments of each of the four ministers, which are marked out

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in an especial manner by the language of the courts, and the extent of the political and revenue arrangements of each state; and it appears to me he did so from the circumstance of some cessions in the Konkun, which were made by Mortiza Nizam Shah the 2nd, then king of Ahmednuggur, to Beejapoor in 1636, ten years after the death of the wise regent, Mullik Umbur. These cessions included all that part of the Konkun which had been under the direct management of Mullik Umbur: Salsette, Bombay, and the immediate coast of the northern Konkun from Basseen to Duman, which had been newly acquired by the Portuguese immediately after the death of Mullik Umbur and the regency of his son Futihkhan.

Attention to these political changes can alone enable us to wade through the complicated principles of the Mahratta finance, as it is seen in the distinct provinces of the Mahratta empire. Turning to the general map, we may observe that the Bahmunee state comprehended all the Konkun, exclusive of the Phonda Punch muhal, which reverted, as circumstances might be favorable to rebellion or defection, first to the Mahomedans, then to the Rays* of Beejanuggur, or Anagoondee: politically and strictly, it pertained to the ancient Deoghur government, for the northern boundary of Kurnata is the Toongabhuddra river, and the coast on the same parallel of latitude; that is, from the mouth of the Gungaolee river, in latitude 14° 30′ north, on the west coast, to Kurnool at the junction of the Toongabhuddra and Krishna, thence to Masulipatam at the extreme embouchure of the Krishna river, in latitude 16° on the east coast. Such at least appears to be the geographical boundary in the legendary tales, *Bukhurs*, and *Poorans*† of the Hindus: whatever were the financial measures, if indeed any were ever thought of, they originated with the Tatar princes of Dowlutabad from the year A. D. 1293 to 1347. At least as respects the whole Bahmunee state above and below the Ghauts, this observation is undoubtedly correct.

Next, in the partition of the Bahmunee kingdom, the Savitree river in the Konkun, and the Krishna river in the Dukhun, formed the general line of demarcation of the Nizamshahee and Adilshahee princes, the former having the northern districts, the latter the southern: lastly, on the decline of the Nizamshahee state, and during the management of Futihkhan, the whole of the Konkun then dependant on the Nizamshahee state, revolted, or was ceded

* Rulers, a title of royalty peculiar to Kurnata.

† Historical and mythological narratives, containing some truth with a large quantity of fiction.

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to the Adilshahee government, leaving Baglana and Kolwun under a mere nominal subjection to this state, or the Moghul emperor. The coast of the Nizamshahee Konkun from Duman to Basseen, Salsette*, Bombay, and Rewadunda with the village of Chewul, belonged to the Portuguese. The remainder or Beejapoor Konkun from the Savitree river, south to Cape Ramas, was under the Adilshahee king of Beejapoor, from the year 1489 to 1674, when Seevajee triumphantly proclaimed his authority over the whole, by the title of king, at Rygurh, on the 6th June, 1674. From that time, the greater part of the Mahratta empire, the Konkun at least, exclusive of Kolwun, the Portuguese conquests, the Hubshees of Jingeera and the Warree Sawunt's territories, have been under the Mahratta rule, and all the changes in the revenue systems, which have supervened from time to time, have reference to one or other of the following empires, the ancient monarchy of India, the Bahmunee dynasty, the Rays of Anagoondee, the Nizamshahee and Adilshahee sovereignties, the Mahratta dominion, vested in Seevajee, or his successors, or the ministers who exercised his authority. The progress of the most ancient Hindu monarchy has been traced: the spirit of the Bahmunee administration assimilated to that of the Mahomedan monarchs before Akbar: the spirit of the last days of the Nizamshahee was in a great degree like that of Akbar's but is by far the most remarkable as acknowledging and upholding for the first time the village institutions, as the government of the Moghuls under Humaioon did, for the first time, that of the dependent authority of the feudatory lords or military vassals of the empire: before these periods, their existence was unknown, as actors, in the political affairs of India; the revenues till then had been paid into the hands of the persons appointed to its collection by the great king or superior of all, and their assignments paid from the royal or provincial treasuries. There were collectors and accountants, and lords of five, of ten, of twenty, and a hundred towns, who were under a viceroy conducting all the affairs and exercising to a certain extent the prerogatives of the king; but in the general confusion consequent on successive invasions, famines, and defections, the ministers and officers renounced, or threw off their allegiance, and assumed that independence which has been supposed to confer

* Salsette island is known to the Mahrattas by the name of Sashtee; Bombay by Moombaee—the Kistna river, so called by Europeans, is the Krishna, the Toombuddra river, the Toongabhuddra, and the Deccan, so written usually by our countrymen, is the Dukhun or country south of the Nurbudda.

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on them an actual proprietory right in the soil; and on the village institutions at a later day, a right or property, distinct and indefeasible, whosoever the sovereign might be. In treating of this subject, I have pointed out where the royal prerogative resided, and by whom alone it can be exercised, or delegated to another. There are also other remarkable proofs of the common, nay universal, assent to the right or property of the first sovereign, in this, that the Moghuls who usurped the sovereignty of the governments they had been appointed to administer, did not style themselves kings, nor did any of the Hindu poligars or zumeendars, in fact, any feudatory vassal or military commander, pretend to that absolute independence of the great monarch of India, which Europeans maintain: they still held and acknowledged, as tributary to him, by his royal mandate, and where they usurped the privilege of coining money, and receiving the rents for their own expenditure, it was in virtue of a belief that their master's possessions had effectually and absolutely devolved on them*. With these introductory notices we descend to the beginning of the 17th century, the last preparatory revolution, may it be hoped, for the intervention of the British ascendancy, for the reform of all preceding abuses, and for the display of a more enlightened and humane policy, which probably will usher in the best and brightest days of its government, and the restoration of a more peaceful influence over the surrounding kingdoms of Asia.

The concurrence of just and well-advised measures, beyond the immediate tract for which they were proposed, may be inferred from the plans of Raja Todur Mul and Moozuffur Khan. During Akbar's reign, Mulik Umbur, once an Abyssinian slave, now raised by the caprice of fortune, to the dignity of a minister, virtually the ruler, of the imbecile and wretched king of the Nizamshahee state, Mortiza Nizam Shah, was neither slow to perceive, nor profit by, the methods which his powerful neighbours employed to consolidate their conquests and attach their subjects to a foreign yoke: he went a little further only, for he provided a remedy for the existing, and

* Until Tippoo Sultan's time such an infringement of royal prerogative had never been attempted or heard of. He indeed thought it a bold step, and Col. Fitzpatrick in his translation of that prince's state correspondence, gives one letter in which the impudence and cunning of Tippoo, respecting the introduction of a new coinage, bearing his, and superseding the Emperor of Dehli's, title, are avowedly employed to make the most of a bad case.—It was only the other day, that the British Government used to coin in the Emperor's name, and unblushingly proclaimed submission to his regal prerogative; having invariably represented the coinage as issuing out of the royal mints, of Surat and elsewhere, though the coin was actually struck at Bombay, Madras, &c.

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probable prospective, abuses incident on calamitous times of war, civil dissension or famine, which we may now admire, as a masterpiece of prudence, foresight, and humanity, although it is never to be forgotten that it is *but a remedy* for these evils: it is not in any wise calculated to promote that perfect and sound policy, which has the double motive to effect also as much good as it can, while it neglects not to anticipate the precautionary measures to the restraint or supercession of evils.

The first act of Mulik Umbur's government was to abolish all the intermediate revenue agency which had been gradually usurping the character of the farming system; probably it had been connived at by the previous rulers, as a speedier and less troublesome plan of realizing the government demands: officers were appointed with assignments on the revenue, as Desaees, Deshmookhs, Deshpandees, &c., the nature of all which had probably been received by tradition from the first revenue system of the Brahmins, or even their predecessors of the aboriginal Hindu monarchy: whether under that system they were lords of one, two, ten, or a hundred towns, they had now a clear definite assignment in money, with a percentage on the collections. He next determined the actual produce of lands, which he classed under separate heads; arable lands into four sorts, *uwul, doom, seem, charseem;* that is, first, second, third, fourth, according to their productiveness: and the hill lands also, in the same, though somewhat more general, way; he next ascertained the produce, and accordingly fixed the assessment by a fixed commutation *(tusur)*, or price, and measure, once for all: the more lands were cultivated, the higher was the government revenue raised, and the percentage of the revenue officers: their interests declined with the decrease of cultivation. Humaioon and Akbar had acknowledged the military zumeendars' titles. Mulik Umbur made the patelships and all revenue offices hereditary, but in doing so, constituted them the bounden securities for the full realization of the government dues, which it does not appear, they had been before that time: as they were responsible to government, the people held the patels and other revenue officers responsible also to them, for their security, and thus drew down upon themselves those grievous exactions which do not enter into the account of government, or in truth form part of the government receipts. When at any time the revenue officers' receipts were brought to light and seized upon by the state, the revenue officers had recourse to new exactions for their personal labour, and the ryot was taught to

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believe that it was the government, and not the revenue officers who had plundered or oppressed him. Mulik Umbur invaded no private property or rights of occupancy, whether the ryots held by Meerassee, or such other description of hereditary tenure, whether by absolute free grants from former kings, still he meddled not with it; and it is to be believed therefore that the construction now put upon Meerassee right is perfectly novel. It involves no more actual interest and property in the soil than before: that is a copartnership which is by ancient compact, that the ryot shall hold and be permitted to transfer his land, so long as he discharges his obligatory rents, but then always with the actual or implied assent of the sovereign, not the village officers, or village community, nor in fact any person but the sovereign himself, or his viceroy. Had Mulik Umbur and Todur Mul so viewed that right, they could not have introduced the land measures, and increase of rent, upon increased cultivation, which there is no doubt they did, although what was once fixed, was once for all fixed, as the revenue of improved land.

The very strong resemblance of Mulik Umbur's plans to those of Todur Mul, has led Captain Grant Duff into an error in supposing that Todur Mul's plans extended to India, in the reign of Shah Jehan. They extended to three districts of Orissa indeed, but no further in the peninsula; by Meean Rajoo's or Mulik Umbur's instrumentality they were extended, as to the general principle, throughout Kandeish and the Mahratta empire; and they were enforced by Suffee Khan and Moorshed Koolee Khan, subsequently, in the Dukhun; as they became known also through Dadajee Kondeo in the Karnatic and Tanjor. Mr. James Grant in his political analysis, says, "the lands, according to Todur Mul's plans, were assessed in the first instance with reference to their fertility, in a proportion varying from one-half to one-seventh of the gross produce, according to the expence of culture or the description of the article cultivated. The government share was then commuted for a money payment; and in time, when a measurement, classification, and registry, had taken place, the regulated assessment was fixed at a fourth of the whole produce of each field throughout the year." The excellence of the two schemes was this, that they considered the interests of the state and the cultivator inseparable: they held out no premium to the abandonment of one field for the cultivation of another, whose produce was less known; they obviated the capricious desertion of lands on false pretexts, or any slight grounds of dissatisfaction; they precluded deception on the part of the ryot,

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or overcharge on the part of the revenue officers; and in fine the ultimate object of both, was the due realization of a certain amount from a province, which they might reckon upon getting at stated intervals: one field with another, one village with another, one district with another, yielding on the aggregate as much one year as another, without reference to the accidental increase or decrease of cultivation, and the absence or neglect of any one cultivator; which equalized a burthen that had been laid on all by previous despotic governments, to make good deficiencies with which the people were unacquainted, and could by no publicity be brought to understand or assent to. On the whole, it may afford us a very instructive lesson how much further the influence of the British name and example might hereafter extend, than to the geographical limits of our immediate possessions. May we have no less attestation to its forbearance and wisdom, if we have no better than that of Todur Mul's and Mulik Umbur's fiscal regulations to their successors.

Mulik Umbur's assessment extended from the Veeturunee river to the Savitree river, the Hubshee's territories excepted. Dadajee Kondeo's assessment, very partially, throughout the Soobhadaree of Dhabol. At the termination of Seevajee's reign, and his son and successor, Sumbhajee, the ancient practice of determining the revenue was superseded by the land measurement termed Beegaonee*. The land measuring rod of Mulik Umbur and Dadajee Kondeo, or his successor in that office, Anajee Dhuttoo, was identically the same, or five cubits and five spans, that is, five and five-sixth cubits, there being six spans or *mooths* to the cubit or *hustu*; that is, $5\frac{5}{6} \times 19.54893$ inches, $= 114.03542$ inches English. I have explained in the fullest manner in my essay on the weights and measures, and their relation to the primitive standard, that the length of this cubit is to be considered exactly the half of the length of the pendulum, vibrating seconds at the temperature of $39\frac{1}{2}^{\circ}$ at the level of the ocean, in latitude 45°, which is, as above stated = one-half 39.09785 inches English: the superficial measure called the Beegah is as to the measure, very different in different places, but the lineal measure or standard which determines the length of the *kathee* or measuring rod is identically the same. The measure used by Todur Mul was a square of sixty Ilahee guz, the same as used by Noorshirvan in Persia. It appears from Abool Fuzul that the Hindus had made some rude attempts at measuring the land before

* Measurement by beegahs, varying in superficial extent with the length of the customary linear measure.

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Akbar's time, with the *tenab*, or *usul*, which was a rope of sixty cubits, and in some parts of Persia, this measure is still used. This last Arabic word has the same signification as the Hebrew word khebel, and the Chaldee *asla*, a rope, a cable or measuring line. The use of this is said in the Kamoos to have originated with the ancient kings of Persia, in place of which they afterwards introduced the chain, because rope was subject to great difference of tension. Whether we are to understand that the sixty cubits, herein specified, are the same as the sixty guz of Noorshirvan and Akbar, it is certainly doubtful, though probable, from the frequent misapplication of words: perhaps we should understand the word cubit (diraa) there used, to be of the same length as the guz: the length of that guz was $\frac{33}{35}$ ths of the pendulum = 33.5125 inches; the square of sixty guz = 3119.7 square yards. The Mahratta beegah is a square of 20 rods, that is, a superficial measure of 2280.784 inches English = 4013.87 square yards: the beegah of Guzerat is a square of 20 gunthas, each of five cubits; that is 5 × 19.54893 × 20, squared, or which is the same thing, 100 cubits, or 1954.893 inches squared = 2948.77 square yards. These three are the principal and most extensively used land measures throughout India.

A determinate land measure and a better knowledge of meting and weighing corn and other produce, were among the advantages of the new assessment: the removal of doubt as to the amount to be levied was the greatest gain to the ryot or cultivator; the fixing of the amount to be realized, or revenue of the state in money or kind, at the option of the subject, was the greatest benefit contemplated by the financiers themselves. When we view the subject in this light alone, we cannot but be struck with the inattention that has marked the British revenue officers' proceedings to the first principle, which regulated the one and the other in old times. This prescribed a law to the prince, in the justice and liberality of which the people could not but acquiesce, and with gratitude also. Without adverting to first principles, what could have been anticipated, but the confused and novel fancies of every hasty speculator, who brought what he conceived, additional improvements to a vicious system? The old man can tell us at the verge of the grave, that there is nothing new under the sun, what has been, will be, and what we now see, was, as to the great and essential principle, the same in all times past, with less of error and confusion heaped on it, with less of sophistry or plausibility to recommend its defects to acceptance, or detract from its real excellencies.

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Before the period of these financial measures, in the 16th century there were neither hereditary revenue officers, nor claimants of direct property in the land, nor zumeendars, nor military feudatories, nor patels, nor village institutions, nor fixed land measures, nor classifications of arable and hill lands, nor that system of meting and weighing the produce, which we now find so generally prevalent, nor lastly, a commutation of the revenue for a money payment. First the king levied his rents, through the intermediate agency of his servants and then, himself: that agency was very limited; the ryots acknowledged the privilege of the usufruct by the payment of a moderate rent, the extent of land was estimated first by the oxen, or ploughs necessary to plough it; then by the quantity of seed requisite to sow it, then by the estimate of its contents, lastly, by actual rude measurement with a rope, or eventually the more correct rod surveys. The villages were at first assessed in separate lots, in kind; then in the whole lot (koomula); lastly, under Mulik Umbur, Todur Mul, Dadajee Kondeo, and Anajee Dhuttoo, by the classified lands, which occasioned the distinction, or first deterrement of Meerassee rights, made such distinctions indispensable, and rendered the appointment of patels and koolkurnees equally so. It made *Meeras*, or *Wutun*, as it is called, a desirable property, because it secured or guaranteed the perpetual or conditional usufruct of lands that had been long in cultivation, whether held by ancient or prescriptive right of occupancy, and a priority of claim in remissions, indulgences, and right of citizenship; if I may so express it, before all tenants at will, however designated.

It is not a little remarkable that the same two distinctions occur in all countries: among the Romans there were the Coloni, and the Villici; in the Domes-day book of our own country, there were the mesne lords and villeins, who held, the one, Book, or Bokland, or land which had been registered and confirmed to them: the other Folkland, that is land holden without writing. Lamberd, in his explication of Saxon words (subverbo, *Terrâ adscriptis*) says that land, in the time of the Saxons, was distinguished by either of the above terms. This Bokland, he says, was held with far better conditions, and by the better sort of tenants, as noblemen and gentlemen, being such as we now call strictly freehold; but the latter was commonly in the possession of clownes, being that which we now call, at the will of the lord. Freehold is sometimes taken in opposition to Villeinage*. When we proceed to the more exact

* Bracton, lib. 4, cap 37, 38.

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definition of freehold and copyhold, or the Bokland and Folkland of the Saxons, or their antetypes the tenures of the Coloni, and Villici of Rome, we perceive a still more striking resemblance to the tenures of India arising out of the same political events, after the Roman empire had arrived at the summit of its power, and had began to dictate laws to the whole of the then known world. As the more interesting and probably the least known to our countrymen in India, of the two, I take the Saxon tenures and the changes which supervened after the Norman conquests. The Gothic nations, and after them, the people of England considered that cultivator *Francalen*, a freeholder, who held his lands for himself and his heirs, without homage, fine, fealty, service, or any acknowledgment to his liege lord, beyond the ancient and proper rent; this patrimonial property was Francalend, or Allodium, in contradistinction to tenure in Villeinage, which is a base tenure, so called because it was holden at the will of the lord, or of him who also rented out the soil, according to the pleasure and at the mercy of the owner: but in the time of the last Roman emperors, the freeholders took example from the precedent then set them of arrogating an absolute property or *plenum dominium* in the soil: as we see *rem dominicam* applied in the Roman civil law subsequent to Justinian, to that absolute property which the emperors claimed as holding of no superior, a purely fictitious subterfuge for the benefit of their heirs. So also after Charlemagne's time, *Res Dominici Juris*, or *Domanium*, signified the king's lands in France, appertaining to him in property*. In the like manner it was used in England. "Howbeit we have now here no land (the crowne land only excepted) which holdeth not of a superior. For all depend either mediately or immediately of the crown: that is of some manor or other belonging to the crown, and not granted in fee to any inferior person, therefore no common person hath any demaines simply understood. For when a man in pleading would signify his land to be his own, he saith, that he is, or was seized thereof, in his Demaine, as of fee†;" whereby he signifieth that though his land be to him, and his heirs for ever, yet it is not true Demaine, but dependent on a superior lord, and holding by service or rent, in lieu of service, or by both service and rent.

* "Quia Domanium definitur illud, quod nominatim consecratum est, unitum et incorporatum Regiæ coronæ." Chopinus de Domanio Franciæ, sect. 2, plegem sequendo 3. cod de bonis vacant. libs. 10, &c.

† Littleton, lib. 1. Cap. 1.

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Hence arose the various constructions of freehold and copyhold property, which we may find fully explained in Bracton. In lib. 2, cap. 9, he says *liberum tenementum*, or freehold, is that land or tenement which a man holdeth in fee tayle, or at the least for term of life. Britton defines it a possession of the soil, or services issuing out of the soil, which a freeman holdeth in fee, to him and his heirs, at least for the term of his life, though the soil be charged with free services or others; copyhold, *Tenura per copium rotuli curiæ*, Tenure by copy of Court Roll, *Folkland*, came to signify all land for which the tenant had no written grant, or for which he could refer to no other document, but the copy of the rolls made by the steward of his lord's court; against this, it was the duty of the steward, to enter in his books, the tenant's name. Fitzherbert says, the word in question, copyhold, is but a new name; it was land held not simply at the will of the lord, but according to the custom of the manor; so that if a copyholder break not the custom of the manor, and thereby forfeit his tenure, he seemeth not so much to stand at the lord's courtesy, for right, that he may be displaced head over head at his pleasure. These customs of manors are infinite, varying in one point or other, almost in every several manor; first, some copyhold is finable and some certain: that which is finable, the lord rateth at what fine or income he pleaseth, when the tenant is admitted to it: that which is certain, is a kind of inheritance, and called in many places customary, because the tenant dying, and the hold being void, the next of the blood paying the customary fine, so many shillings for an acre, or other fine, may not be denied his admission. Secondly, some copyholders have by custom the wood growing upon their own land, which by law they could not have. Thirdly, copyholders may be such as hold by the *verge*, in ancient demesne, and although they hold by copy, yet are they, in account a kind of freeholders, for they are liable to the same forfeitures, and claim to the same benefits as freeholders. Lastly, there are others, who hold by a common customary tenure, called mere copyholders, who enjoy no such privileges, as any of the foregoing tenants, but may be ejected at the will of the landholder on refusal to pay increased rent, or perform service.

In the foregoing sketch of the Saxon tenures and the changes that supervened, in the construction of Bokland and Folkland, Freehold and Velleinage, we may trace the resemblance of both to the Indian landed tenures from the more perfect and simple form, to the various abuses by which one arrogates a property, as of

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dominium, perfectly independent of all fine, homage, fealty, rent, or service; while another possession is on the true ancient principle of freehold, but its occupant denies his obligation to pay homage. A third possesses a copyhold on the condition of observing the customs of the manor, although considered and treated with, as a freeholder; these three classes are the military zumeendars, or Nankars; second the Meerassees, Wuttundars or Kanyatchikars, who have freehold of the better sort; others having copyhold estates descending from father to son, on fulfilment of the manorial customs. In the Mahratta empire, the zumeendars had their origin in the most turbulent periods of Indian history, and began to be known and dreaded as a powerful body in the early conquests of the Brahmin princes, who style them Kshutriyus, (the military barons.) They again re-appeared in the time of Sheer Shah, but were for a while kept under subjection, not having gained sufficient political strength till the reign of Shah Jehan, from which period they encroached more and more upon the power of the Moghul emperors till with the intervention of foreign invasions, they occasioned the entire subversion of the constitution of this ancient monarchy. The second class subsisted under the first sovereigns, but admitted their tenures and customary obligations whatever they were, whether of service, or fealty, or rent, or homage; but this class in the lapse of ages has been for the most part ejected or ruined, or supplanted by the third, or copyholders, inheriting by the custom of their manors. Holding by such tenure, they have paid the increased land tax of the Brahmins and Moghuls, the policy of which it is by no means my intention to advocate, though the parallel of these and our own national institutions and history will better explain the true nature and origin of the present Meerassee rights, than any exclusive references to Hindu law books, or local customs of particular provinces.

It is not the least important part of this inquiry that it concludes the great body of the better description of landholders under the same unqualified obligation to the state, of some sort; and it will be found that homage is the most essential of these dues. Wheresoever Meeras is not of the nature of ancient freehold, this homage is due, that is, a nuzur or fine on entering upon it, whether in the person of direct, or collateral, heirs: and a greater fine, where Meeras is first conferred, or is sold out of the family: besides which, the consent of the government as a party to the transaction, is in these last cases indispensable. Having examined a great number

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of papers on this curious subject, I believe that all lands held according to the nature of Meeras agree to the Saxon: but the tenant at will, *(Sookwustoo,)* and the greater part of the Wuttundars and Meerasdars of the Mahratta empire, mere copyholders, having nothing to show, but the village rent-roll, the descent of this copyhold property from father to son, is on condition of fulfilling all those obligations and services to the state which after the death of Mulik Umbur were transferred to the village communities.

We now enter upon the description of the land tenures of the Konkun, which are either considered of the nature of Meeras, or Wuttun, that is, hereditary property charged with a fixed *dhara*, or service, and *urdhel;* all the Meeras, or Wuttun of the Konkun is of the nature of the Saxon copyhold, with certain obligations to the lord of the manor above described. Some few obligations are of the nature of service. The principal renters, of the first description are the Gaonkars, the Khotes, Koolkurnees, and Patels; of the second, the Dharakurees, Khutelees, or Koolarug cultivators; the Meerassees and Wuttundars (in this capacity, Wuttundar Khotes, Koolkurnees and Patels have a distinct right for that property, so held, as *Wuttun*), have no true freehold property, according to its first acceptation, though they enjoy certain privileges of freeholders. All that I could learn after the most diligent inquiry with respect to these rights were, that they derived first from the Nizamshahee and Adilshahee kings; some, (a very few,) from the Mahratta government, but that neither Patels, Khotes, Meerassees, Wuttundars, Koolarug or Dharakuree tenants, had any title to property of older date than these princes. By the confusion of the distinct claims or rights of the Khotes, as bound to certain service and homage to the Beejapoor state, and their rights as Wuttundars, a great deal of misunderstanding prevailed when Mr. Dunlop was collector, and not being supported in his recommendations by government, the consequence has been a confirmation of rights over the ryots, which they, the Khotes, had usurped, and an exemption from services and bounden homage which they had very unjustly laid claim to. The particulars I shall state more at length hereafter.

The nature of perfect Meeras appears to be this, that it is saleable, and such property is found to a small extent in the Dukhun, and in Khandesh, though it is very questionable how far the right has been exercised without the consent and privilege of the state. Whether disposed of, or transferred to another, the first possessor was charged with the rent, and such transfer became void unless

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the rule were recognized by all the heirs or claimants, and the officers of government. Such Meeras was liable to sequestration for arrears of rent, till this deed of sale was formally executed before all these parties: without the consent of all heirs and co-partners, it could not be sold; but if all declined to pay the government demands on it, the property reverted to the state, as it *occasionally* did so also, in forfeiture, for treasonable conduct of the individual holder. The nature of the *wuttun* or *meeras* of the whole Konkun is an assignment for service or lease for rent, hereditary, unalienable, unsaleable, but for life or a term of years, though it is frequently mortgaged for the term of the possessor's life, and has been even sold, though contrary to all acknowledged custom. It does not appear that the consent of heirs is necessary to such deed, though it has frequently occasioned the ejectment of the lawful heir either from his neglecting to resume his property, through the greater cunning, or actual occupancy of the person to whom it was mortgaged, or the collusion of the Mahratta government and its revenue officers. The Khotes appear to have been officers appointed by the Beejapoor government, and to have had no existence before that time; their tenure prescribed certain service, and entitled them to several privileges and exemptions: having great power in their hands they have gradually dispossessed all classes; the true Meerasdars of their hereditary lands, as well as the Hindu officers, the Desaees, and Deshpandees of their plunder and usurped acquisitions, and annihilated in many palpable instances the humble but useful tenantry which was put in operation by the same government at the same time.

The first introduction of the Khotes, as I have learnt from an ancient inscription, and many kowls, or grants for the occupation of new land, was in the year of our Lord 1502, when Mustapha Khan was deputed by Ali Adil Shah, first king of Beejapoor to administer the affairs of the Soobahdaree of Dhabol, extending from the Savitree river to the Gurnyee river, the southern boundary of Salsee. In many of the kowls, the Desaees, Koolkurnees, and Deshpandees, about that period, are confirmed in their *Wuttuns*, from which it is to be supposed that these offices had been some time in existence, although they were merely looked upon as agents or poligars, who had usurped certain privileges which, for the better realization of the revenue, and in view to the conciliation of this troublesome but useful class of revenue agents, the Beejapoor government thought it necessary to enter into such recognizances. In

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these documents it runs thus:—Such and such person, Desaee, or whatever it might be, having accepted the offers of government and notified all his just claims, is confirmed in his *Wuttun*. Beyond the above limits there is no account of any Khots, though some Mahomedans, boldly presuming upon the supposed ignorance of the collector and his servants, have set up some absurd claims to this title; arguing that *Khot* means farmer, which in strictness it does, and that as they had the farms of villages from the Peshwa's farmers, or contractors, they had a claim over the ryots of their villages equal to the *Khots* of the old Soobahdaree of Dhabol. From their interpretation it was concluded by some of the Revenue assistants, that the Khots of Beejapoor were also to be reckoned as mere farmers, a very dangerous and foolish concession, which favored the pretext for the continuance of the farming system. Mr. Duncan in his report on the Island of Salsette, remarks that no patels were known in the Portuguese territory before the time of Kundojee Mankur, nor is there any reason to believe that an office, of so important and extensive use in the present revenue system, could have been overlooked in the Hindu or Mahomedan books, had it had any real existence before the time of the Brahminical code being published, or the fiscal regulations of Akbar, and Mulik Umbur. With the latter prince it began to assume a characteristic and settled form. It is to be presumed therefore, that the Khot was another word for Patel, his office intended for the same express objects, to conciliate and superintend the ryots, to assist the government in the collection of the revenues, and by what the Mahrattas call, *soundul*, a system of distribution, apportion also the demands of government, or losses by calamitous seasons, or events, to all the ryots in strict relation to their circumstances, necessities, and lands.

In the abstract there are, therefore, three descriptions of land tenure, 1st. That of the Khots, Patels, Gaonkurs, and village or district officers, charged with service; the true lineal descendants of those first appointed by the Moghuls. 2nd. That of Khutelees, Koolarug, Dharakuree, or Meerasdars, the true lineal descendants or heirs of the original copyhold proprietors, which, as well as those of the former classes, were first introduced by the Beejapoor, and Nizamshahee princes and called Wuttundars: 3rd. Urdhelees, tenants at will, mere copyholders, as described in the foregoing sketch of Saxon tenures, the same as the *villici* of the Romans, and the Ceorles of the Saxons. There are, it is to be observed, many Khots, Patels, Gaonkurs and other village and district officers charged

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with services, as holding on an inferior description of tenure, by grants on escheats, or mortgaged property lapsing to the state by default, or non-appearance of heirs, and this is burthened with the very same obligations as the true tenure, and is hereditary meeras, (or *mouroosee*, Arabic) as the occupants term it, but it is neither considered so valuable by the occupants, nor the natives in general, nor was it so esteemed by the native governments. The reason is to be found in the characteristic timidity or superstitious reverence of the natives to the received tenures of the land. Nothing is supposed by the Hindus to entail so great and grievous a curse as the unjust seizure of land, or its alienation from the first lineal heirs of the occupant. It was always customary therefore with the native princes, even the most reckless and unprincipled of them, Bajee Rao, the late Peshwa, to constitute all persons to such lapsed Meerasee property, or *wuttun*, whether Meeras in the highest degree, or Meeras as it has been above described to subsist in the Konkun, with infinite reservation to the heirs, should any such turn up hereafter; or to their submitting to the terms required of them by those who held their property in mortgage, or on their behalf.

Upon the same principle the Khutelee or Dharakuree, or Meerassee, who neither held his property by descent, nor investiture from the Mahomedan governments of the Dukhun, was considered inferior to the proprietor who derived his claims from the first copyhold proprietor by descent: there are therefore a great many of the two first classes of persons, Khots, Patels, Dharakurees, &c. who are not wuttundars, nor have any such privileges, yet subject to limitations of recognition, the dues of services, rent, &c. which were obligatory on the hereditary cultivator, or wuttundars, being, in a far stronger degree, binding on those holding by the less ancient title. It might be said therefore, throughout the whole Mahratta empire, whether in the Dukhun or Konkun, there were strictly but three kinds of tenure, true merass, originating with the ancient monarchs of India; Meeras originating with the Nizamshahee and Beejapoor governments, entitled *wuttun*, either for service or rent: Third; Doolandee, oopree, or urdhelee tenure, originating with the late oppressive taxation and civil dissension or wars of the Mahrattas; to which in after times were superadded the subordinate distinctions of the first and second tenure, which was Meeras of inferior value, both as to antiquity, title and acknowledged right. The only kind of hereditary property to be found in the Konkun was that which came under the second head, and its two distinctions; all other cultivators are mere tenants at will.

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To recapitulate the whole in the most explicit terms. Such tenures of land throughout the entire Konkun were of these three kinds: first that derived immediately from the state, which therefore was responsible to it, or to its officers, for the service or revenue with which it was originally chargeable; this was, and still continues to be hereditary, (mouroosee or wuttun*,) frequently mortgaged, and has also been thrown up, though it is not saleable without the general consent of the family and heirs, and not out of the family, without the consent of the ruling power: it is not liable to other service, or strictly speaking, to other exactions of any kind, belonging exclusively to the members of that family, *Kool* or household, in whom it was first vested. The tenure of meeras is inferior only to that ancient and most valuable description of property now known throughout Peninsular India, which doubtless originated with the kings of Beejapoor and Ahmednuggur; a second also, though called Meeras, because hereditary, is certainly not strictly such, nor accounted *wuttun* or patrimonial inheritance, being neither saleable, nor transferable, though it is frequently mortgaged: still subject in every sense, to restitution to the heirs of the first proprietor, and ad *interim* charged with every claim of service or rent: it derived also from the state, but at periods subsequent to the first settlement and appropriation of the land, either from meerassee lands which had lapsed to the sovereign by the extinction of the families of their first occupants, by escheats on the subversion of former dynasties, or new assignments on wastes, conferred on new proprietors. In some places near the coast this last is called Silotur, and is more frequent about Sanksee, Salsette, and the north Konkun. This description of Meeras, however, not having the sanction of antiquity, and being subject to many written recognitions to the state in all cases of descent, was less valuable, and therefore under the Mahratta government not unfrequently relinquished. Instances are also on record of this description of Meerasdars being ousted for others, on payment of a larger peshkush or acknowledgment: though it was no doubt considered a grievous injustice by the parties thus displaced, notwithstanding the power so exercised was never disallowed, nor questioned, under former governments. The term meeras being indiscriminately used for both tenures; first, as coming from the state, next as restricted in the abstract to hereditary succession,

* The natives have a proverb regarding the sacred right of land or property of this nature, derived from their fathers by descent, "Hoob ool wuttun min ool eeman," Arab. The love of one's patrimonial property is an article of faith.

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has occasioned much perplexity in the discussions which have been instituted from time to time at the desire of the British government, for the better discovery and understanding of the existing claims of the cultivators of the soil. The escheating of meeras by the sovereign, cannot be considered as countervailing the true original and indefeasible right of the heirs of the first occupant or possessor, but as a mulct or forfeiture analogous in some degree to that consequent on felony, or high treason, the former of which, not coming under the cognizance of native governments, never was, and the latter but very rarely, visited on the household, or *Kool*, collectively, either, according to Hindu or Mahomedan law. Under the first description of meeras, were the estates, or it might be offices, conferred on the original partition and settlement of the country; under the second, the grants to such *Khotee* offices and Koolarug farms, which had lapsed to the state by default of heirs. The wuttun of the Khots originated altogether with the Beejapoor kings, on whom it was conferred when no such tenure existed in the district of the Konkun subject to that state; the meeras of the Koolarugee cultivator by the officers of that state, under the system of *Chowk Charee;* that is, a community of independent freeholders, collectively answerable to the state for their *Dhara*, or revenue, with obligations differing only in kind from those affecting the Khots. So much were these tenures respected, that neither Seevajee, nor his son Sumbhajee, ventured on the conquest of the country, nor indeed in their subsequent revenue management to infringe, or in any way disturb, the occupancy or title of those in whom they found them vested at that period; nor did the Peshwas deviate from this same policy with respect to the country in any of the districts from the Veeturunee river to the Punch muhal of Phonda southward; throughout which, therefore, we find this description of tenures in full operation at the time the country came under the British dominions, part in 1812, the rest in 1818-19. Owing to the disturbed state of the country, and the oppressive measures of the Mahrattas, to frequent famines, pestilences, and droughts, many estates have passed from the families of their original proprietors into the hands of Brahmins, Mahomedans, and some few also have reverted to the Mahratta government, chiefly during the operation of the farming system.

The transfer of the first kind of meeras, which for the sake of perspicuity and distinction we may properly term alienable, as the latter is unalienable by its proprietors, would take place to a far greater extent in the small than great estates: accordingly, we

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find few of these small estates in the hands of the reputed original families to whom they were first assigned, being for the most part Shoodras, or Mahomedans who have superseded the original proprietors; and such abandonment is the most remarkable proof that the heavy assessments have ruined the small landholders, who were unable to withstand the constant demands against them, yet by holding to their patrimonial estates till they were compelled to relinquish them by actual ruin, they have involved their fields and their government in the same calamity. The hereditary Khots, having larger capital, and the resources of the whole villages, at command, have withstood such demands or risen above their difficulties, and are yet more numerous, in comparison, than the Koolarug, or Dharakuree, cultivators.

The third description of tenure is that of the *urdhel*, or tenants at will, to whom the land was either leased on *oolthe*, *istawa*, or *kowl*, sometimes on a mere *ookhtee*, or verbal agreement: the first and last description of indefinite lease prevails in all the woody and mountainous tracts from Jowar, to the last and dreary retreats of the Koolees, Bheels, and Ramoosees on the Suhyadree mountains to the southward; being confined by the former governments, principally to such lands, as were not recovered or brought into the general partition, when the Hindus and Mahomedans of the Dukhun first established a systematic measure of land revenue throughout Maharashtra: the *oolthe* was a conditional power, allowed of moving year after year, from one field to another, as it was more favorable to cultivation, or as it required a rest, or natural fallow, and perhaps even of alternating the grains cultivated: the second was from a rough estimate of the produce in kind, the seed required to sow a certain tract, or the quantity of land that could be managed by the cattle and ploughs of the cultivator, which was, and had been usually fixed by verbal agreement of the landlord, whether the sovereign, his servant, or any dependent farmer; and these two appear on strict inquiry to have been the most ancient tenures known throughout this, as all other parts of India. They appear to have long preceded every other, and were in full operation at the time of Todur Mul's, Mulik Umbur's, Suffee Khan's, Moorshed Khan's and Dadajee Kondeo's settlements, when they were displaced by the rod measurement.

Having thus fully explained the original and present state of the land tenures, and the principle of the rent, revenue, or service, attaching to each, we may now consider the land as assessed in the

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first instance with its rent in kind, the customary practice of the Hindus before the 16th century. The whole Konkun was anciently subject to the Deoghur princes: in the 12th century the districts south of the Savitree river were overrun by Poligars*, or chiefs, acknowledging some sort of submission to the Anagoondee princes of Kurnata. The northern districts fell under the dominion of the Bahmunee kings of the Dukhun, who for a short time recovered also the southern districts; but these soon reverted to the Poligars of Chakun, Jooneer, Rayree, Punnala, Koodal, and Soonda; on the fall of Anagoondee, and the establishment of the Beejapoor government, the southern districts of the Konkun fell under the power of that state, those north of the Savitree river continued in the hands of the Koolee chiefs, till they were dispossessed by Mulik Umbur, who then held the government of Dowlutabad, and Jooneer, for Mahmood Shah Bahmunee. The first settlement of the country took place throughout the northern and southern districts, about a century before Mulik Umbur's improved assessment was introduced. In the Ahmednuggur, Konkun, it was called *Dhemp;* in the Dhabol Soobah, *Dhara;* and in the Koodal prant†, *Koomula.* At first it had reference simply to the rice cultivation, and that by the *aslah,* or rope measurement: the *bhurrur,* or *wurkus,* hill land, being estimated by the *hul,* or *nangur,* that is, the plough, as it is also

* The word Poligar appears to have been anciently used for a freebooter; and *phond poligar,* one who lived on black mail. As the weakness of the empire increased, and the terror inspired by the insurgent feudatories and marauding chiefs extended over the south of India, it came to be applied to all who had set up for themselves, whether from choice or absolute necessity. The most northern Poligar chief, now in existence, is the Dessaee of Sawunt Warree. Those of Jooneer and Punala were reduced by Sevajee, but Chundur Row Moria of the latter place, is still familiarly spoken of as a brave and great man, whose government was conducted with prudence and justice, as well as vigour. The reader will of course consider all such commendatory statements to be made with reference to the then existing state of knowledge, and religion.—The poligars of southern India, occupy a very prominent station in the animated contests, between the first British adventurers and the native powers, so elegantly described by Orme, one of the ablests of our Historians.

† Prant as we have elsewhere shewn was an ancient Hindu term, signifying a considerable subdivision of a country,—answering to a county; some two, three, or more of which, constituting what was afterwards designated a soobah or viceregal government—so that of Wussyee, Kulian, Kurnata, Chewul, and Rajpooree constituted the Tul Konkun subject to Deoghur, or Aurungabad, extending from the Damungunga river to the Savitree river in lat. 18° N. The prants of Dhabol, Rajapoor and Koodal comprehended all the southern districts of the Konkun subject to the Anagoondee, subsequently to the Beejapoor viceregal government, extending from the Savitree to the Gungaolee river, lat 14° 30′ N.

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now: this *dhemp, dhara,* or *koomula,* was fixed with reference to the seed required to sow the land, and was very light; however uncertain, both as to the measure of the land, and the measure of the produce; it is generally believed to have been rated at one-sixth of the gross produce, the remaining sixth, for the service and officers of religion and charity, not being taken into the account, nor regularly defined, before that period, as we have stated at the commencement of this essay: the government share of the produce was a *tenth* only. Mulik Umbur's assessment contemplated the more correct knowledge of the extent of arable land by the rod survey; the Beejapoor government still followed the old practice of the *dhara,* and *koomula,* ascertained by Nuzur pahanee, or ocular survey, in which condition it continued till the time of Dadajee Kondeo. During the life of Sumbhajee, the son and successor of Seevajee, Anajee Dhuttoo made the first regular survey and assessment of the Dhabol Soobha, when the Dhara was fixed by Beegaonee; or in other words, the produce of a Beegah (= 4014 square yards) of each kind of land, regulated the government share.

It is the general belief of some respectable aged zumeendars, that at the time of the first ascertainment of the *dhemp, dhara,* or *koomula,* the whole of the cultivators were treated with, as Meerasdars or Dharakurees of one description; all the villages being *Koolarug,* and assessed according to one uniform standard. From the strictest enquiry I have little doubt of this account, and that there was then no such thing as the *Urdhelee's* or *Badhekuree's* tenure. This arose out of the vicious system of the Mahrattas, and is the true fruit of that ambiguity and laxity of principle inculcated by the Hindu law books. It is not impossible that this tenure may have grown out of the abuses of former Hindu government: however that may have been, most of the vexatious practices of the Hindus, extra cesses, and tenures of various kinds, gave place to the more simple, uniform and just condition, above described, of mutual acknowledgment; the ryot on his part discharging his rent, the government leaving the ryot in undisturbed possession of his field. Hence, undisturbed possession grew up in a very short time into the fixed nature of an hereditary patrimony, *(wuttun)* or *meeras,* of which nothing but the extreme of injustice, oppression, and violence could deprive them.

Having received from nine-tenths of the hereditary village officers, an account of their origin, and the probable date of their ancestors' first institution to office, or property, as far as they them-

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selves could ascertain it, I have ventured to speak the more positively, being assured that nothing is now wanting to a perfect understanding of the rights of this once powerful, but troublesome class of landholders. If we can but distinguish between the first and highest kind of property throughout the Konkun, and that acquired by more recent grants, by mortgages, default of heirs, or relinquishment of patrimony, we can be at no loss to pronounce what obligations are strictly binding on the several parties; moreover, we should labour under no difficulty in determining what right the government have to assess, or require service of the cultivator: and in this view again, it is difficult to say how speedily we might see the entire population raised from poverty, gross ignorance, and bondage, to a state of comparative moral and civil efficiency. Such was the unsettled and impoverished condition of the Konkun in the year 1502, for which the Nizamshahee and Beejapoor kings proposed a remedy, by inviting back or encouraging all the landholders to return to their homes, and re-occupy on the simple acknowledgment of a light rent, part payable in money, but chiefly in kind, at the commutation rate of the bazars of the season; for which, and obedience to the government officers, they were continued in undisturbed possession of the fields they then cultivated, with reservation of their claims to their heirs according to Mahomedan or Hindu law. By the former females are admitted to a share, by the latter never. There was then no sayer, but the duties on trade, and the various charges of the revenue officers for the house expences: the Revenue was collected by the Koolkurnee, that is, accountants*, and brought by their several subordinate agents to the government treasury, whence it was reissued to the troops and servants on the spot, or in neighbouring districts, and so was almost immediately circulated within the very range of its collection. In the sequel, a more exact account was taken of the lands and produce, and the average bazar rates by which it was commuted.

Joseph's levy in Egypt, had been from a fourteen years' trial, the criterion of the extremes, of plenty and want. Akbar's was from a trial of ten, or nineteen, years. Mulik Umbur's, was from a five, or as others relate, a three years' trial: this was called Behera; the same was observed in after times by the Peshwas, though it must have undergone modifications from the influx of American

* Derived from كل kool, Arabic, all; and قرن kurn, Arabic, to account, in other words جميع jumeea, to add one to another.

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gold and silver into the markets of the whole world. I have collected average rates of all the different kinds of produce for the last forty years from the native dealers' chopras, or books, and the market prices of the metals and chief necessaries of life, see Appendix, which details may give some idea of the value, though the avarice of this class would naturally induce them to impose as much as they could on the people, having as little regard for the life of their fellow-creatures, or their preservation from starvation, as for a brute's.

When the Portuguese first settled* on the coast about Basseen and Salsette in the year of our Lord, 1534-6 they found the financial arrangements of the Bahmunee government in operation, and they continued them with very little alteration. So that in their territories we may learn what would have been the effect of the first system, as also that of Mulik Umbur's throughout the Kullian and Chewul prants, had not the Mahrattas overrun the country and imposed other grievous additional taxes. These particulars are to be learnt first from the revenue administration of the island of Salsette and the coast from Basseen to Duman, which were never at any time subject to the financial regulations of Mulik Umbur. The lands were then leased at an established rent, equal to one-third the entire produce. To the European Fazendars they were assigned at a small quit-rent, and the assessment which was supposed equivalent to the third or the fourth of the gross produce. There can be no

* It is very generally believed that the Portuguese obtained all their possessions from Buhadoor Shah of Goojrat by the valour of their first settlers. Nothing however is further from the truth; for I have found by searching the Portuguese state records that they were ceded at the instance of Akbar and Shah Jehan on the representation of the celebrated beauty in the imperial seraglio, the lady Donna Juliana Diez, who was captured by a corsair on her voyage to Terceira, and came by purchase into the possession of Sultan Selim, the Grand Signor, from the slave market of Constantinople. By him she was sent with other presents under a trusty convoy to Akbar, the youthful monarch of Delhi. Her case being desperate and no way of escape practicable she still adverted to her obligations to the land of her fathers—to her people and to her religion. Having won the emperor's affection, she applied herself with singular adroitness and success to promote the interests of her country and religion in India: what success she had in the latter, may be learnt on referring to the very curious particulars of Akbar's secession from the Mahomedan faith, and the new religion he proposed to set up. The explanation of this I believe has as yet remained a perfect mystery. This lady's history and her state correspondence with the Court of Portugal through the Jesuits were first pointed out to me by Don Manuel de Portugal, then viceroy of Goa. I have since obtained a manuscript memoir in Persian from the late Capt. Macan's library. Her fate is implicated in the earliest settlements of the British people also.

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question that the state of the country improved daily, and would certainly have completely recovered its former degree of productiveness, when the whole of the lands were of the exact nature of perfect freehold, subject to the most ancient light assessment under its native Hindu sovereigns, of one-tenth the gross produce: but the intolerant spirit and determined bigotry of the Portuguese priesthood, towards their native subjects, precluded the benefits which would have attended this assignment of farms under the care of European managers*. There was at this time, no actual measurement of the lands, but so much land was estimated as a *khundee, moorah, parah,* and so forth. No mention is made of the various tenures which are now found throughout India, nor of the various offices of Koolkurnee, Patel, Bulotedars, Deshmookhs, Deshpandees, and so forth: the managers of the cultivation under the Portuguese were *Mahtaras,* a native word signifying an old man, but these were altogether of their own institution. Whatever changes they introduced, chiefly affected the revenue demands of the European proprietors, whose rental was increased differently in different places. Mr. Duncan has left exact details of the Portuguese system of revenue management in his account of the Island of Salsette, which he says was "parcelled out on its first conquest among the European subjects into village allotments at a small foro or quit-rent: those Europeans continuing the local usage of levying under the denomination of *tokah,* or *dhemp* their ascertained and permanent rent from the natives, who cultivated their estates which were rated with a view to yield to the landlord, one half the crop." This difference of rental to the immediate tenants of the Portuguese government and the Portuguese landholder, constituted the European Fazendars' or landholder's profits, and the same is still the practice with all the Hindu farmers on a large scale; that is, to receive from the cultivator at secondhand, or under-tenant, a rent equal to the difference of one-third and one-half the gross produce, or one-sixth. As an instance of which all

* The nature of these assigaments does not appear to have been clearly understood hitherto. The term Fazenda means revenue, as we say *Junta da Fazenda,* the Revenue Board. The Europeans received these grants of land on condition of colonizing in India, and enforcing with their tenants the observance of the Roman Catholic faith, or if *Gentoos* (i. e. Gentes or Gentiles) of procuring their conversion, with strict limitation of succession to females; and this practice in process of time had the desired effect of attaching the proprietors or their female descendants to the soil, where they now vegetate, a miserable mixed race, little acquainted with their former religion, and perfectly ignorant of Christianity.

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the great landed proprietors, Nana Kholutkur, the greatest of these proprietors in the Konkun, also Ramchundur Purub Gaonkur of Mussooree, Goolam Hoossain Patel in Tulloja, Khan Sahib Bhensekur at Nagotna, Dahim Khan at Mahar, Baba Burwa at Dhabol, Nana Wahalkur at Sawurde, Anjunvel district, Naro Ramchundur at Wurad, all receive one-half the gross produce, they themselves being responsible to the British government for the land rental, their tenants for such other extra cesses, as have been imposed beyond the land rental. This, or the highest portion of the produce, was confined however to those lands which produced either *chowka*, or *Khara bhat*; that is, rice cultivated either on fresh alluvial, or salt alluvial lands; from Dongur, or hill lands, a less proportion was exacted by the European Fazendars, and a still less proportion demanded by the Portuguese government. The tenure of the native peasantry was thus reduced in their territories to that of the *urdhel*, or *doolandee*, who might, if they saw fit, throw up their fields, and take service with another farmer; but even thus situated, the cultivators of the Portuguese territories, were by all accounts extremely happy, and easy in their circumstances, and the Fazendars themselves, enriched beyond measure, till the Portuguese was superseded by the Mahratta government.

The European farmers supplied their under-tenants with seed or rice plants, for which they received a heavy return, for interest and principal, besides the fixed moiety, and thus brought them occasionally into that state of bondage, which is the greatest reproach of the Hindu landlord; for the cultivators could not, without incurring debt, pay more one year with another, than one-half the produce, and support themselves and families with any degree of comfort, they were either absolutely reduced therefore to have recourse to downright knavery, or to submit to privations and unwholesome fare, and the most abject dependence on their masters. From a review of the effects of recent exaction of a like kind throughout the Konkun, it is not to be doubted that wherever such practices prevailed, the like consequences always ensued. It is not probable however that this practice was at all general, in as much as cultivation improved, population increased, and new lands were cultivated or recovered from the sea by fine embankments, or the clearing of the forests and brushwood under their enterprizing European occupants, who set the example to the natives. These new lands were held by the tenure of Shilotur, paying probably according to some more ancient custom, progressively the fourth, third, half, two-

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thirds, and the fifth year the full rental of *(Khara bhat)* salt alluvial, or *(dongur)*, hill land: such was also the analogous system of Todur Mul in Akbar's reign, in regard to Khirdsar, Cheechur, or Bunjur lands: of those last Abool Fuzul says thus: "When land, either from excessive rain or by reason of inundation has suffered so much that the husbandman finds difficulty in cultivating it, he is allowed to pay the revenue in the following proportions. The first year two fifths of the rent (produce); the second year three-fifths; the third and fourth years, four-fifths each, and the fifth year, as poolej; that is, one-third of the gross produce: and according to circumstances the revenue is received either in money, or in kind. In the third year the charges of five per cent. and the duty of one dam per beegah was collected. Such was the rule with Cheecher land: in regard to Bunjur land, Akbar ordered that there should be taken from each beegah, the first year only one or two seers, the second year, five seers, the third year the sixth of the produce, together with one dam, the fourth year a fourth of the produce, and after that, as poolej. But this indulgence differs according to circumstances." This progressively increasing rent is what is now called *Istawa* introduced by the Nizamshahee government, and practised by the Mahrattas; whether it regarded new lands *(now Khird)* brought into cultivation, or *(Khirdsar)*, lands that had been cultivated, but are now waste: the only difference consisted in the proportion of the full rent *; (not *produce*, as Gladwin has erroneously translated it in the first passage regarding the recovery of Cheechur land, to be paid for the period of five years, when it was supposed equal to bear the full rental. Such might be the general rule in regard to *kowls*, but certainly with a much longer term of years, 15, or 10 at least; the tenant subjected all the while to pay some rent, however small, gradually progressing the first five, however much the remainder, till it arrived at the maximum, or one-third the gross produce.

* The fact is, Gladwin did not understand clearly what was the meaning of rent and produce, for he has used them to signify at one time the government share, at another the whole rent or produce; now the matter stands thus, that the entire produce is the entire rental, of which produce he considers the government share only to be the rent, that is, he puts a part for the whole, and had he done so all along, his own meaning would have been perfectly intelligible though not accordant with the language of political economy, or so accurately expressed. It is of course to be understood of such produce that it is exclusive of attendant expenses of cultivation, and interest of capital.

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The lands they recovered or brought anew into a state of cultivation were then, and even now, are still termed *shilotur:* they were chiefly within the assigned limits of the European Fazendars' estates, by whom they were most frequently disposed of to the natives, who paid a fixed quit-rent to the Fazendars, and in the case of government grants, directly to the government, without any reference to the produce or nature of the soil. This shilotur property is met with all along the coast formerly subject to the Portuguese, as well as the Kallian, and Chewul prants, exhibiting proof how much could be done by embanking and draining lands*.

The Portuguese introduced or reinstated many other small taxes which had been disallowed by the Mahomedan government of Deoghur or Dowlutabad, which they commuted for a small money payment, that made the whole assessment amount to about one-half the value of the gross produce; whether of fruits, roots, corn or pulses: on the whole, however, the enterprize and intelligence of the Europeans, and the capital bestowed in the improvement of old, or the cultivation of new lands, compensated in a great measure for their misconduct in other respects: their finances were in a very flourishing condition, and the country thriving, but their intemperate zeal and forcible attempts to convert the Hindus to the Roman Catholic faith, with their threats to subject them to the terrors of the inquisition, brought upon them the whole powers of the Mahratta empire, who after a contest of three years finally expelled them in 1739 and detained their best troops as prisoners of war for nine years, when they were released by treaty†.

At this period the Beegaonee assessment was first extended by the Mahratta to the Wussaee prant, district of Basseen, so far as respected arable land. In the northern districts of Sunjan, and Tarapoor,

* All the Portuguese possessions in India were arranged by Don Joaõ, the IVth A. D. 1526 under the head of Novas conquistas, and Provincias del Norte. I have obtained a complete copy of the curious Revenue report drawn up by the Junta da Fazenda of 1526 and His Majesty's Royal mandate, which exhibits a picture of Indian finance, before the Mahrattas existed as a nation, and before the Brahmins had arrived at any great power, and almost immediately after the breaking up of the Bahmunee sovereignty of the Deccan and the formation of the Nizamshahee and Beejapoor kingdoms.

† I obtained a copy of this most inglorious and dishonorable treaty, by which it appears they were compelled to pay down seven lacs of rupees, other two lacs within six months, and two more in a further period of six months. This was the foundation of the present debt of the Portuguese state, amounting this year to 22 lacs of Rupees, of which a particular account and the treaty above alluded to will be found in the Historical review of the province. See Appendix.

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the old system of estimation by the quantity of seed, the *khundee*, *moorah*, &c. necessary to sow the field, continued in force with respect to rice land: the *hul*, or *nangur*, i. e. the plough, to hill land, only that the lands were classified and assessed at different rates, some more, others less, than they had been before.

Captain Grant Duff observes in his Mahratta History, that Mulik ool Tijar was accompanied in his expedition against the poligars and their adherents A. D. 1429, by the hereditary Deshmookhs wherever they remained, and an experienced Brahmin, named Dadoo Nursoo Kallay: on his return to Beedur, Dadoo Nursay and a Turkish eunuch of the Court were left to arrange the country, and recal the inhabitants. As the former boundaries of villages were forgotten, Dadoo Nursay, in fixing new limits, extended them very much, and threw two or three villages into one; lands were given to all who would cultivate them: but for the first year, no rent was required; and for the second, a *tobra*, or basket full, for each beegah, was all that was demanded. Without any desire of criticising, for mere pastime's sake, this excellent and useful history, I would venture to affirm that at this time the idea of an exact land survey had not entered into the natives' minds; there might have been the *aslah*, *tenab*, or *dooree* survey, the meaning of each of the above three words being the same, a rope; but it is not probable that the reduced condition of the inhabitants of the Konkun, and the irruption of a large body of Mahomedans, would conduce much to the furtherance of such a settlement, and exact measurement of the lands.

A very respectable public servant, Mahommed Ibrahim Purkar, furnished me with an account of the Rygurh Talooka, which might be held up as a striking illustration of the indifference of the most intelligent natives to dates: this Talooka, in which stands the celebrated mountain fort, the great stronghold of the founder of the Mahratta empire, Seevajee, lay altogether north of the Savitree river. He describes it, as subject to the Ray, or Ram Raja, of Anagoondee, then king of Kurnata; the truth is, that Ibrahim Adil Shah stipulated with the Moghul emperor Shah Jehan, that he should receive the Nizamshahee Konkun north of the Savitree river, and the fort of Sholapoor, in return for assistance in reducing Mortiza Nizam Shah's territories to the Moghul sway: his successor, Moohummud Adil Shah, contrived to evade his engagements with the Mogul emperor but took possession of the Nizamshahee Konkun in 1632; Kullian being formally given up to him in 1636. The imbecility of Mortiza Nizam Shah and his faithless minister Futih

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Khan, brought about an alliance, in which Moohummud Adil Shah got possession likewise of Sholapoor. The issue of Futih Khan's usurpations and injustice towards Shahjee Bhonsla, the father of Sevajee, produced a rupture which drove the latter into the service of the Beejapoor state. In this service he was deputed to obtain possession of Dowlutabad, in which he failed, though he resorted to every cunning expedient that a Mahratta could have devised. At the termination of this expedition however, Shahjee, aspiring covertly to the Nizamshahee government, got possession of all the Konkun formerly dependent on that state. He did not pretend at first to occupy for himself, but some supposed infant member of the old Nizamshahee family: his dependents, chiefly Mahrattas, were invested with powers to settle the provinces in his master's name. In the mean time, Shah Jehan, incensed at the seizure of this territory which had so long constituted part of Dowlutabad and fallen with it to the possessors of that fortress, insisted on Moohummud Adil Shah denouncing Shahjee Bhonsla. The emperor's troops having frequently defeated those of the Beejapoor state: Moohummud Adil Shah was compelled to sue for peace, and it was finally agreed by treaty, (A. D. 1636), that the Nizamshahee Konkun should be made over to the Beejapoor state, with other dependent territories in the Dukhun, subject to an annual tribute to the Moghul emperor, of 25 lacs of rupees. Shahjee Bhonsla was suffered to resume his station as a stipendiary of the Beejapoor state.

The country thus ceded to Beejapoor brought the whole of the Konkun completely under that government, from the Veeturunee river to the Phonda Punch Muhal, with the exception of the Portuguese conquests at Goa, Chewul or Rewudunda, Sashtee, and from Basseen to Duman, a slip of the coast varying from 10 to 20 miles in breadth. In the geographical distribution of the Mohamedans, the proper name of each province was restricted to that portion under their authority. The Konkun in this instance was divided into four Soobhadarees, or districts; the first extending from the Veeturunee river to the Nagotna river, was under the Soobhadar of Kullian, the second under the Hubshee of Junjeera, in farm, with reservation of his own immediate Jagheer, the half of Rajpooree Talooka; this extended to the Savitree river; the third was the Soobhadaree of Dhabol, extending to the Dewgurh or Gurnyee river; the fourth was confided to the Waree Sawunts, the Desaees, or poligars who had obtained possession during the distractions and weakness of the Anagoondee, or Kurnata princes.

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Shahjee, when he found all his schemes defeated, retired for a while to his jagheer at Poona, which was confirmed to him anew by Moohummud Adil Shah, but was soon dragged from his retirement to command an expedition against the rebellious chiefs of Kurnata. Seevajee, his eldest son, a boy of 10 years of age, was left under the care of Dadajee Kondeo, a Brahmin formerly in the service of Mortiza Nizam Shah, who had attached himself with many others of like persuasion and fortune, to Shahjee Bhonsla. In reward for the services of Shahjee, Moohummud Adil Shah annexed the Mawuls in the vicinity of Poona to his original jagheer, and in them, as well as in the Poona jagheer, Dadajee Kondeo introduced the revenue system of Mulik Umbur, wherever it had been left unfinished by that prince. Born and nurtured in the most turbulent period of the Indian history, Seevajee soon contracted an unconquerable aversion for the Mahomedans, who had in an especial manner injured his own family: while a youth, he listened with avidity to every tale which would either kindle or encourage his ambitious designs for their expulsion; and the return of those golden days, when the Hindu might dream on undisturbed, in the apathetic listlessness of his peculiar life and worship, when the records of his subjection to a foreign yoke should be blotted out for ever, were to him the first and greatest motives to that systematic course of treachery and deceit, to that strange method of revenge, which emboldens the robber to adventure. Seevajee having possessed himself, either by stratagem, or by intrigue with the Killadar, of the fort of Torna, commenced his career of disloyalty, contrary to the advice of his father and the repeated admonitions of his faithful instructor Dadajee Kondeo, and by a series of silent and imperceptible, but rapid strides, arrived at complete possession of the districts between Chakun and the Neera river: shortly after, he seized upon all the hill forts in the Mawuls and the fortress of Islamgurh or Rairee, Tulla, Gosala, and other mountain fastnesses in the Konkun. One of his emissaries, Abajee Kondeo, availing himself of the total supineness and imaginary security of Moolana Ahmed, the Beejapoor officer in charge of Kullian, came on him by surprise and made him a prisoner, his troops in the meanwhile, bringing all the dependant districts and forts under subjection to Seevajee. Shortly after this, he surprised and put to death Chunder Row Moria*, another officer of Moohummud Adil Shah of Beejapoor, and took

* A brave and celebrated poligar chief reduced by the Beejapoor troops, before adverted to in the notes.

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the hill forts on the range of ghats, as far south as Wassoota. He then entered into a correspondence with Aurungzeeb, the Moghul's viceroy in the Dukhun, and representing how greatly Moohummud Adil Shah had mismanaged the government of the Konkun, procured Aurungzeeb's concurrence to his taking it under his own superintendance for the emperor Shah Jehan. Without waiting for Aurungzeeb's answer he dispatched Shamraj Punt to attack and expel the Hubshee from Junjeera ; but whether from mismanagement on the part of Shamraj Punt, or the superior numbers, strength, and skill of the Hubshee, the troops of Seevajee were completely defeated.

The Desaees or Poligar chiefs, Sawunts of Warree, perceiving the success of Seevajee's rebellion, proposed to come over to his party, with a proviso of holding their territory of Koodal prant in equal shares for him as their superior, and for themselves, instead of continuing as the allies, or servants of the Beejapoor government ; the treaty however was not fulfilled till Seevajee was established as an independent prince. In 1659, Anajee Dhuttoo, one of Seevajee's dependents, was sent against Roostum Zuman, whose Jagheer or command, comprehended Miruj and Kolhapoor above the Ghauts, and below the ghats the whole Konkun, south of Dhabol to Rajamundroog, or Karwar, with the exception of that only, under the immediate management of the Warree Sawunts. Roostum Zuman was worsted by Anajee Dhuttoo, but the Warree Sawunts adhered to their allegiance to the Beejapoor government, and for some time kept him in check. In this struggle Bajee Rao Phasulkur, the Mahratta leader, and Kye Sawunt of Warree, were slain. In 1661, Seevajee extended his conquests to the whole of the Dhabol Soobha, but was unsuccessful in his attack of the Hubshee's Island forts of Junjeera. In the following year he compelled the Sawunts of Warree to submit, and built Reree, and Sindhoodroog forts, which he garrisoned with his own troops. His last act was to repair all those forts on the coast which had been built by the Beejapoor and Nizamshahee governments: Veejydroog, Rutnagiri, Jygurh, Unjunvel, Soowurndroog and Koolaba.

Thus Seevajee became possessed of the whole Konkun, which on his visit to Aurungzeeb, at Delhi he entrusted to the care of Anajee Dhuttoo, Moro Trimmul Pingle, and Abajee Sondeo : the former had the Dhabol Soobha; the Peshwa, Moro Pingle, the Rajpooree and Raigurh districts, with the neighbouring Mawuls ; Abajee Sondeo, Kullian. On his return he renewed his attempts to dispossess the Hubshee and Portuguese, that he might get complete pos-

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session of the whole of that province which belonged to the ancient kings of Deogurh and Dowlutabad: but his efforts were altogether unsuccessful. In 1668, 1669, he turned his attention to the settlement and revenues of his newly acquired territories, and appointed Anajee Dhuttoo to make an exact survey of the lands, in some degree corresponding to that made by Dadajee Kondeo in the Poona jagheer, on the principle of Mulik Umbur's assessment and surveys. In this respect, however, they essentially differed, that whereas the former allotted one-third to government, and two-thirds to the ryot; this, by Anajee Dhuttoo, exacted two-fifths for the government, and left three-fifths only to the ryot: all other cesses however were at first interdicted, and the Patels, Khots, Koolkurnees, Deshmookhs, and Deshpandees prohibited from interfering with the government officers beyond the duties and offices strictly enjoined in their original *sunnuds*, grants, and *kowls* charters. Still in the midst of all this confusion, warfare, and general disloyalty, the state of the revenue and population is said to have prospered: if this had really been the case, it can be accounted for in no other possible way, but that the people were only subject to the land tax, from which Seevajee discharged all the expenses and grants to religious and charitable objects, whether Mahomedan or Hindu. In the subsequent appointment of his eight *prudhans*, or great ministers of state, the same Anajee Dhuttoo was first nominated to the office of *Soornees*, or general record-keeper, superintendent of the department of correspondence, examiner of all letters: all deeds and grants were first copied by him, and the attestation of his examination, and their having been transcribed, was necessary to their validity. This Brahmin was probably selected to fill this office, from his conversance with the usages of the country, being also hereditary Desh Koolkurnee of Sungumeshwur, or general accountant of revenue of the Prubhawulee *Mooamila*, government, where all the business of the Dhabol Soobha was for a long time carried on.

The foregoing sketch of Seevajee's conquests of the Konkun, and of its principal political and geographical divisions, brings us to the period where the Mahratta revenue system was first projected by Seevajee and confided to Anajee Dhuttoo: we shall now examine more carefully the financial measures which were prosecuted towards the close of Seevajee's life, and during the short reign of his son and successor Sumbhajee, all in fact that remains worthy to be considered as in any degree systematic. Hitherto, the land had been assessed

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at one-third its gross produce. Sevajee at first adhered rigidly to Anajee Dhuttoo's interpretation and construction of the rules prescribed by the Hindu shasturs: but he subsequently raised his assessment on the best kind of land about seven per cent.: in the first instance, he levied only 33 per cent. of the gross produce, as had been the practice under the Beejapoor* and Nizamshahee government; he now levied 40 per cent. on the best, on the average one-third, as before. It is commonly believed indeed, that he measured and classified all the lands, and then ascertained the amount of their produce from one or two villages in each Muhal of the Ouchitgurh, Rajpooree, Rygurh, Soowurndroog, Unjunvel, Rutnagiri and Veejydroog† districts, for three successive years, from which data he established the rates, half in kind, half at a fixed commutation rate differing in each Talooka, to be paid by the beegah of each sort of land. The classification of the rice lands, *mule*, or *dhemp*, under twelve heads; the four first still retaining their former well known distinctions. *Uwul*, 1st and best sort; *Doom*, or *Dooyoom*, second sort; *Seem*, 3rd sort; *Charoom* or *Charseem*, 4th sort. The first was assessed at 12½ muns; the second at 10, the third at 8, the fourth at 6¼ muns. These four descriptions of land paid a rent to the government of about two-fifths of the gross produce. We may judge therefore what was the productiveness of an English acre, in English measures. The beegah as we have before shown, was 4014 square yards; the *phera*, or *mun*, constructed either according to the rules of the Hindu books, or the Persian, Moghul, or lastly the Arabian, and Egyptian measures of the *urdub*, introduced by the Abyssinians, and Toorks, was the half of the cubic cubit = 3735 cubic inches: the *pylee* was the sixteenth part of the mun, exactly equivalent to the English wine gallon. The true content of the Winchester bushel is 2134 cubic inches; the corn gallon also deduced from the primitive standard = 266-8 cubic inches; all these particulars will be found most correctly and fully authenticated in my Essay on the primitive

* Under the Beejapoor government the two-fold measure of rental is very exactly defined in all the ancient *sunnuds and kowls*, i. e. grants and charters: the king's share is therein called *Rajbhag*, or one-sixth, *Prujabhag* the ryot or cultivator's share, five-sixths of the gross produce, from which one-sixth was assigned to *Khyrat*, *Peer Durgah*, or the general objects of charity and religion.

† The zumeendars gave me a very exact account of these surveys which were communicated to Mr. Dunlop, but he has made very little use of the information but of that of Unjunvel, although in many respects the classification of lands is materially different.

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standard of weights and measures. I need not therefore enlarge further in this place on that curious subject.

The first or *uwul* land paid a revenue of 46,687 cubic inches,
Doom, ... 37,350 which being increased in the ratio of
Seem, ... 29,880 five to two or 100 to 40, as it was
Charseem,..... 23,344 levied in the proportion of two-fifths of the gross produce, we have the total for one beegah.

Produce of customary beegah of 4614 square yards, each beegah being reckoned $\frac{3}{5}$ of actual measurement.

	Bushels-gallon.			Bushels-gallon.	
Uwul 116718 cubic inches, ...	Or in English corn measures,	54	6	57	2
Doom 93375 do.,..		43	6	or 45	0
Seem 74700 do.,..		35	0	36	5
Charseem 58359 do., ...		27	3	28	5

The comparative produce therefore of an acre English would be as 69 to 60 with respect to the foregoing. — English acre.

The remaining eight descriptions of land went by the following names, discriminating their respective qualities, and were assessed at the annexed rates. 1st, Raupal, on which small stunted brushwood grows; 2nd, Kharwut, lands in the neighbourhood of the sea or rivers, sometimes called salt bhatty lands; 3rd, Bawul, rocky soil; 4th, Khuree, stony soil; 5th, Kureyat or Toorwut, lands cultivated with pulse, hemp, &c.; 13 Manut, lands with the roots of large trees still uncleared, as near Indapoor and Goregaon.

		Bush. gallon.		
Raupal, ...	8 maunds per beegah.	35	0	36 5
Kharwut,.....	$7\frac{1}{2}$	33	0	34 4
Bawul,.....	$6\frac{1}{4}$	27	3	28 5
Khuree, ...	$6\frac{1}{4}$	27	3	28 5
Kureyat, 1st sort,	$6\frac{1}{4}$	27	3	28 5
Ruhoo,.....	5	22	6	23 0
Toorwut or Katahnee,.....	5	22	0	23 0
Manut,.....	5	22	0	23 0

Produce per beegah of 4014 sqr. yards in the ratio of 5 to 2 of rent.

The comparative produce therefore of an English statute acre would be as 12 to 10 with respect to the foregoing or very nearly one-fifth more.

Per English acre.

Subsequently the wretched cultivators have planted small spots on the most rocky eminences, wherever a little water lodged, and the least portion of soil favored the growth of rice; this is frequent about Unjunvel and Rutnagiri Talookas, and have been classed under two heads, both called *sirwut*, the former assessed at $3\frac{3}{4}$ maunds, the latter the half of that; the produce of the first kind, would be about 16 bushels per beegah, or $17\frac{1}{4}$ per acre, the inferior

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sort 8 bushels per beegah, or 8¾ bushels per acre; scarcely repaying the trouble of its planting, watching and reaping.

The assessment of hill cultivation, called *wurkus*, or *dongur* was levied by the *hul*, *nangur*, or plough, according to the rotation of the crops, large allowances being made for rocky and unproductive spots. This alternation is usually made in the following order, Nachnee, Wurree, Hureek, and Til: the ground then requires some time to recover, from three to seven years. These are called by the natives, dry grains, in contradistinction to the rice cultivation, called wet crops, not being in any case dependent on artificial irrigation, or other means than the periodical rains afford. In some few places, even *wurkus* was measured; and three, five, six, or seven beegahs, counted as one, according to the years required for one rotation of crops. Nachnee was assessed at 3¾ maunds per *nangur*, occasionally though rarely by the *beegah*, as now stated; inferior soil at three maunds. Wurree, also was assessed at three maunds, and 2½ maunds; Hureek, from its more abundant productiveness, at three maunds, and every other kind of inferior produce at 1¼ maunds.

All produce raised in the second or third crops paid, with reference to the land, and to the deteriorating qualities of the plant, that on *uwul*, or first class lands, very heavily. Turmeric, or Huldee, five maunds per beegah, each beegah, being ⅘ actual measurement. Hemp, or *Tag*, five maunds, each beegah being reckoned ⅘ actual measurement. Sugar-cane cultivation assessed from 6¼ mun to 3⅛ of raw sugar per beegah; the ground after this requiring a full year to recover. These articles were received by weight. The seer, as I have shown in my account of the primitive standard of weights and measures, and have likewise ascertained by numerous experiments, was of 28 tolas, equal to 5250 grains troy; that is, twelve avoirdupoise ounces: the mun weight of 40 secrs or 4800 ounces; that is, exactly 30 avoirdupoise pounds. The produce of the beegah and English statute acre of each, is as follows, being reckoned at ⅘ of the government share.

	Avoirdupois per customary beegah.	
Turmeric, ..	375 lbs.	5352 square yards, or 340 lbs. per English statute acre.
Hemp, ...	375 lbs.	5018 ditto or 360 lbs. per ditto.
Raw Sugar, .	468¾ to 234⅜.	4014 ditto or 452 lbs. to 226 lbs. per ditto.

The above was the revenue system and assessment carried into effect by Annajee Dhuttoo towards the close of Seevajee's life; as it included none of those extra cesses and exactions with which the

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revenue accounts are now overloaded, it appears to have been rather a modification of Mulik Umbur's plan, than an increased tax; for the produce of the best kinds of land, which bear a very small proportion to that of middling or inferior quality, is much under-estimated, and the average produce about 40, or 42 mun: whence it would appear that he in reality levied something more than the two-sixths or one-third, but less than two-fifths. The produce of the first and best sort of rice land called *uwul*, has reached in good years to 75 mun; in the general run to about 55 mun: the produce of the second, to 52 mun, and in ordinary seasons to 40 or 45; the third sort *seem* to 37 in the best, or in ordinary seasons to 26 or 28; the produce of the fourth to 20, or 22 in the best, or in ordinary seasons to 15 or 16 mun. *Baool* may be computed, one year with another, from 30 to 36; *Kharwut* from 25 to 30 mun; *Manut* from 16 to 22; *Sirwut* from 6 to 12. The produce of *wurkus* or hill land varies with the grain, with the soil, and with the seasons; of all these small grains, Nachnee, Naglee, or Ragee, yields the most astonishingly productive returns, having occasionally amounted to 400, or even to 600-fold*. Hureek or Kodroo, according to the exact measure of a beegah; produces from 5 to 20 mun. Wurree from 2 to 12 mun. Hureek from two to ten mun. Til from one to four mun. Ooreed from one to five mun. Kooleet or Koolthee produces from ½ to three mun. The ordinary return of the small corn, in a very moderate season of rain, is about four hundred fold. It constitutes the chief support of the poorer classes, and is their last stand by against starvation, and seasons of extreme distress, or when the rains have fallen partially and irregularly; for the autumnal dews suffice, after a certain period, to mature the seed of the hill grains, which yet are quite insufficient to bring the rice crops to maturity. In the southern districts, that is, from Mal-

* The usual produce of the *wurkus* grains averages from 50 to 100-fold. Dr. Roxburgh in his botanical account of *Eleusine stricta* (*Cynosurus indicus*, Linn. Eleusine indica, Lamarck: Poa digitata, R. Br.) has the following apposite observation. "About twenty years ago there came up accidentally amongst some rubbish in my garden at Samulcottah two tufts of this plant, each upon examination I found to be the produce of one seed, each had 25 culms and each of these culms had, on an average, two lateral branches, making in all 75 culms and branches; each produced upon an average 6 spikes, (for they had from 4 to 8, in all 450 spikes, each of these had at a medium 60 spikelets, and each spikelet ripened on an average 3 or 4 seeds, total produce (81,000) eighty-one thousand. I was myself particularly attentive in counting the above produce because it was so astonishingly great." At this distance of time I was disposed to disbelieve my own notes till I accidentally met with this corroborative testimony. This is the Nachnee or Naglee of the *wurkus*, or hill lands.

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wun south, there is but little of this cultivation compared with *bhat*, or rice cultivation. It is abundant over the whole of the Veejydroog, Rutnagiri, Unjunvel, Soovurndroog, and Rajpooree Talookas, where the laterite appears approaching the surface and the general face of the country is mountainous, rocky, and poor; north of this limit the hilly tracts are rich, but so over-run with jungle, forests, close brushwood, bamboos, and the Schœnanthus, or Lemon-grass*, and Doob, or Dab†, a gigantic species of coarse grass, that it is a work of infinite labour to prepare the soil for cultivation, and when the grain at length is ripening, it is at the entire mercy of innumerable depredators, locusts, deer, bears, and wild hogs, which infest these inaccessible retreats in vast numbers: added to this, the population is extremely scanty from former wars, mismanagement, the oppressive conduct of the Mahratta Soobhadars, and the great scarcity of water.

It should be observed here, that the Brahmins, in the first instance and after them the Moghuls, had arrived at the utmost limit of taxation with which the cultivation and moral character of the people could possibly consist: one-sixth for the state, one-sixth for the priesthood and service of religion; that is, two-sixths or one-third of the gross produce: this was 33⅓ per cent. Seevajee, whether he designed it or not, and it is generally believed that he did not contemplate the slightest deviation from the Hindu shasturs, or customs, levied two-fifths of the gross produce, that is, 40 per cent.: but this amount exceeded the capability of the ryot to pay; the ryot and all the parties concerned in the realization of the revenue, began to scheme how they could get over this difficulty: the conclusion was, they demanded or introduced by stealth the practice of reckoning 23 pands, instead of 20, to one beegah: twenty rods of 5⅔ cubits, as we have above explained, each way, made a beegah; that is, each rod of 5⅔ cubits squared, made the 20th part of a beegah. In a tabular view we may understand this superficial measure more

* Cymbopogon Schœnanthus, of Sprengel: a native of the Cape of Good Hope, Arabia, and India; it covers immense tracts in the northern uncultivated plains of Bengal, and I found it on all the northern face of the Nilgherries. It is the same as the Andropogon Schœnanthus of Linnæus, and citriodorus vel citratus, Hortus Malab.

† The Doob, or Dab, here mentioned, is not the Doorva of Sir Wm. Jones, the Agrostis linearis of Linnæus, or the Hurrialee of the Mahrattas and Canarese: that plant which is identically the same with the fiorin grass of English farmers, is, as rich and nutritious, as this is rank and pernicious. This is the Poa cynosuroides of Linnæus.

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exactly. $5\frac{4}{8}$ cubits = 114.03542 inches, which squared = 10.0347 sqr. yds. 20 poluhs, or 200.694 square yards, = 1 pand. 20 pand, or 400 poluhs, = 1 beegah, = 4014 square yards. The consequence of this over-taxation, whether it were conceded by Anajee Dhuttoo; or the understood clandestine work of the Mhars and Patels, by connivance with the land measurers and village officers to adjust with the Koolkurnee for the revenue, was to require each beegah to be of 23 pands, or in other words, that for each 23 pands, or 4014 sqr. yds. + 3 × 200.694 = or 4616 sqr. yds, the government rent should only be levied as far 4014: now 602 sqr. yds. the extra quantity of land, was considered a compensation equivalent to the extra assessment beyond one-third the gross produce; it was in fact the exact compensation in land for the precise addition of government rent now first imposed by Anajee Dhuttoo: for the rent at two-fifths the gross produce was 40 per cent., at one-third the gross produce $33\frac{1}{3}$ per cent.; the difference therefore of 40 and $33\frac{1}{3}$ was $6\frac{2}{3}$ or 666 or 15 per cent.: but as the land was over-charged, it was under estimated in actual extent, 23 pands being reckoned for every 20, and thus three pands were passed over, or unaccounted for in every 20; that is, one beegah in every $7\frac{1}{2}$ of the actual measurement by the rod, or 15 per cent. In the first case, the difference of $\frac{2}{5}$ and $\frac{1}{3}$ the gross produce, is $\frac{1}{15}$: they reckoned also one beegah in excess, over each $6\frac{2}{3}$ beegahs or 15 per cent. We have here therefore the plain instructive hint that there is a certain maximum beyond which the gross produce cannot pay a rent to the government, nor the farmer or landholder, without bringing the most disastrous and certain consequences on himself and his occupancy. It is a difficult and delicate question, which determines the capability of the soil and the ryot to pay, the farmer to produce, and the produce to exhibit an undisputed test of agricultural skill on the one hand, or moral responsibility on the other. This was the first occasion of all that misery, malversation, demoralization, and deceit, which has ever since been growing out of this revenue system, the last, the most unhappy of the procedures that is entitled to any such distinction; for all after that are rather to be accounted tribute and extortion than fair and unexceptionable revenue arrangements.

The consequences of further oppression are not to be seen at once in the same plain unequivocal expression of disagreement between the land measure and the impositions heaped upon the people by the government and its agents; they are to be seen in all the collusions of the revenue servants at fraudulency, and the pretexts, whether true or

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false, of the landlords and cultivators, for remission, the neglect of agriculture or the impoverished nature of the soil and marketable value of its produce.

It has been very long affirmed that two-fifths of the gross produce has been collected from the ryot without his incurring any such loss as to drive him to defraud his landlord, or government. It has likewise been affirmed that Seevajee's, or his minister's, Anajee Dhuttoo's assessment was reckoned in exact conformity to the Hindu shasturs, at one-sixth the gross produce of the soil, without any extra cesses of whatever kind; but the foregoing discredits the probability of any such statement: inasmuch as when the government rent had passed the precise limit which enabled the ryot to support himself and meet the expence of cultivation the government were compelled to indemnify him by an equivalent in land. Had the land been assessed at one-sixth the produce, the sextuple amount of each rate would give a total produce that is very rarely known in the most favorable seasons on the best lands, and certainly, with all the best not excepted, very considerably more than the average. But enough has already been said on the subject of the progressive increase of the rent, from two-tenths or one-fifth under its two distinct heads, to two-sixths or one-third. The rise from one-sixth to two-fifths must, if introduced at a later period, have occasioned a sensation in the minds of the people, that could not have been lightly forgotten, but the transition from one-third to two-fifths was easy, the increase of the rent however being one-fifteenth, the ryot was allowed, or took, fifteen beegahs additional for every hundred, from which the government derived no revenue whatever, and so at length it came to the same thing as the former assessment of Mulik Umbur, one-third the gross produce.

There was then a practice, which existed from the times of the more ancient monarchs of India, to collect by the *Tukbundee*, or *Hoondabundee* system wherever the coolies had retired before the Mahrattas. It subsisted, till superseded by the new plans of Anajee Dhuttoo, and Trimbuk Veenaik in the districts north of the Ouchitgurh Talooka: at that time the proportion of land so assessed was very great, but may be estimated at this present time somewhat less than one to ten of the whole arable, or *mule* cultivation, north of the Oolas river. The hill cultivation, of the southern Konkun is almost exactly as one to three of the rice, or *dhemp* produce. From this we may form a tolerable judgment of the obstacles and existing scantiness of *wurkus*, or hill cultivation in those quarters

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which pay altogether by this method. It appeared to me on inquiry to conform exactly to the rude practice which is prevalent with the celebrated mountaineers, the Todawurs and Burghurs of the Nilgiri hills: they judge by the eye, that a certain piece of land may produce so much; it is sold, it is leased, and rated accordingly. The eye and the judgment of a savage or a poor untutored being as the Todawur is, has acquired by exercise, in matters such as these, a degree of precision and skill which would scarcely obtain credit with those who had not tried them. I have frequently put their native talent to the proof, and am satisfied that a far greater degree of exactness was attained in the ancient Nuzur undazee or Nuzur pahanee of the former revenue officers, than we should be willing to concede as probable. In the northern, or Sunjan districts, the *Hoondabundee* assessment is more frequent; in Munohur, Washalee, Wara, Kolwun and the Dang, the *Tukbundee* system prevails. It is extremely light, and comprehends all other sorts of demands on the soil, the *babtees* and *sayer* of the Mahrattas being altogether unknown beyond our own possessions. Seevajee did not make any alterations in the revenue system of the southern provinces from the Salsee muhal to Karwar, which was then under the exclusive management of the Sir-Desaee of Koodal, or chief of the Desaees in charge of the five Muhals, Koodal, Phonda Punch Muhal, Karwar, Mirjan, and Ankola. We have therefore an insight into the revenue management of the Beejapoor government anterior to the Mahratta reforms, since the *Koomula* assessment still continues. This assessment was on the number of *Bhurus*, *Khundees*, and *kooroos* of seed; and the whole collective amount, as well as the whole collective share of each man's rental, was called after the Arabic word *Koomula*. See Golius sub verbo, كمل Kumula, perfectum efficit: so *Kool*, or Kumul, totum, omnimodo; signifying altogether, absolute amount. The grain measure of these districts is as follows:

					Cub. in.
4 seers	= 1 pylee,			.....	146.3
8	= 2 pylees	= 1 kooroo,		.....	292.5
64	= 16	= 8	= 1 pura or mun,	....	2341.0
160	= 40	= 20	= 1 koodalee khundee,		5853.0
640	= 160	= 80	= 4 = 1 bhuru,	....	23412.5

These measures I have ascertained from a great number of very careful experiments, and have traced to their true original standard. The average dimension of the pylee measure varies from 5.7 inches

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diameter to 5.675 inches or 5.7 inches deep; those dimensions give a small quantity less in the cubic content or 145.45 to 144.2 cubic inches: they are made on the principle that the koodalee khundee should correspond to 24 pylees, or English wine gallons, the English gallon, as I have before observed, being an exact counterpart of the Mahratta pylee. The quantity of seed necessary to sow the different descriptions of ground varies from six or eight seers, to 16 seers for one khundee of the produce, according as the seed is planted and transplanted out, *(laonee)* or sown broadcast, *(ompnee.)* It appears on inquiry that the first method is always resorted to in rich productive lands, and the division of the plants when taken up and the offsets separated, although attended with much additional labour, yields a considerably larger and more perfect crop, than by the broadcast sowing: the roots germinate again into many distinct additional offsets, each of which, when matured, yields a full good ear of corn; for when these offsets are divided, it would seem that the plant puts forth still greater efforts to mature the seed, and throw out others, all of which likewise with proper culture, and judiciously planted at proper intervals, when the rain falls heavily, produce a full good ear. It is not to be doubted that the repetition of the process would increase the return still more and more. As it is, the rice plants when first planted out are not so thick set, by which means they have more room to spread, and more air, light and wind, which are all very essential requisites to the perfection of the vegetable creation. The system of sowing broadcast, is a slovenly method, quite undeserving of the well-earned praise of agricultural skill, where the improved but more laborious process is exhibited as a proof of the capab lities of the soil with a better management. From the quantity of seed sown therefore, the exact quantity of ground cannot be determined without reference to the method of sowing or planting, but it is probable that 7 to 10 kooroos of *laonee* may be reckoned to a beegah, and 18 to 25 kooroos of *ompnee*, or broadcast cultivation. The crops were divided, as elsewhere, into the *Paosale*, or *Sird* (wet, cold, rainy); *Veedul* or after crops, called in the central districts south of the Savitree, *Kurdun*, and north of that boundary *Katahnee;* the third *Geemvus*, or crops raised by artificial irrigation, which are exclusively confined to the Koodal and southern districts of Warree, Goa, Novas conquistas and Phonda punch Muhal. All arable land was called either *Jeerayet*, or if used for gardens, cocoanuts, betel-nuts, &c. *Baghaet*, a distinction very general throughout India. Whatever land did not come under these

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heads, was either *Bhurud*, or *Dongur:* the former answering to the *Mal Zumeen* of the rest of the northern and southern zillahs, as *Dongur*, or hill lands, corresponded to *Wurkus*. All the first description of land was appropriated, in the first instance, (the *sird* crop,) to raising rice: in the second or *Veedul* cultivation, to koolthee, chillees, ooreed, and very rarely a third and after crop of Nachnee: but the quick succession of crops without a rest, or fallow, effectually exhausts the soil, and detracts from the general profits of husbandry. In the foregoing system the *Koomulu* respected the quantity of seed sown, and the average produce: the government rental averaged from ⅛th to ⅓th of the gross produce; it now stands nominally at one-fourth in the *mule*, or rice cultivation, and one-third in the *Bhurud* or *Dongur* cultivation, the last two appropriated exclusively to dry grains, to hemp, and pulses. The assessment of *Baghaet*, or lands planted with cocoanuts, *betel-nuts*, &c. was fixed upon the number and productiveness of the trees; from the average return of all the trees, young and old, producing fruit, in whatever situation: the utmost produce of a cocoanut tree in the best situation and attended with the greatest care, may be about 140 or 175 nuts, from which it ranges to 20: the first and last years of its bearing, the number is still less. The money rate or assessment on each tree, one with another, varied from 40 to 50 nuts or about two-fifths, possibly about one-half the gross produce. Sooparee or betel-nuts, are of much more delicate growth; the produce by weight, is from two to 12, or 20 seers: of this the government rental or tax was one-third, or in some cases as low as one-fourth, where the labour was excessive, and the returns extremely uncertain. The old *Koomula* rental of *Baghaet* was in the highest degree impolitic and ruinous. At Mr. Dunlop's suggestion the assessment was very much reduced. By what I could learn, it was the practice of the revenue managers to go into a cocoanut oart, or *sooparee bagh*, (betel-nut plantation) and estimate the produce of the trees at sight; saying, all these trees may yield one with another, so many thousand cocoanuts; on these different rates were assigned per 100, according to the reputed capability of the soil, the out-turn of the dried kernel, *cobra*, or the requisite labour, the extent of ground occupied, and means of irrigation. In Mussoora and Wurad, the rental, or tax of *Baghaet* for cocoanuts, was in the *Koomula* 16¼ anas per 100 nuts: in Maloondee, 17⅜ anas; in Pat, and Malwun, or the immediate coast, where the sea air favored the growth and maturity of these palms, about 18¼ anas per 100. The cocoanut is from

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7 to 8 or 10 years before it produces fruit; from the 7th to the 11th year it yields from 25 to 70 nuts, and if watered, the roots loosened and manured with Koothee (salt fish), occasionally salt, and in good grounds, lives for 30 or 35 years, and produces 140 to 170; after which, it gradually falls off, declines, becomes sterile, and dies. The assessment, on an average, contemplated a sixth of the true produce of all the trees collectively, the *Koomula*, or in the aggregate indiscriminately.

The preceding exhibits a summary but correct outline of the last revenue arrangements that are entitled to the name of systematic; and here we may pause to inquire what is the full amount that the ryot or cultivator can afford to pay without difficulty for a continuance; for whatever rent he cannot discharge without recourse to forced methods, whether it be the relinquishment of personal gain, comforts, or the destruction of his capital, are undeniably and evidently calculated to draw down ruin on him, as well as on his landlord, to paralyze his exertions, and to annihilate that return which is the reward proportioned to increased skill and increased industry. We have seen the origin of the government rent, the acknowledged right of the renter or sovereign to the lesee's rent for the usufruct of his property, first a tenth as embracing both the sovereign's and state rights, next as distinguishing these rights. It was first a tenth, or a sixth, then two-tenths, or one-fifth; or two-sixths, or one-third; lastly two-fifths; but which was subsequently, as obligatory on the state, reduced to the former rate of two-sixths, or one-third. It was the opinion of no questionable authority, Sir Thomas Munro, that one-third the gross produce is the utmost amount that can ever be levied with any colour of justice from the cultivator, nor can it be doubted from a review of the revenue system of Akbar, that this last amount is more than could be taken for any continuance, unless the cultivator be permitted to sell his produce without restriction; one-fifth the gross produce, is, or should be, sufficient to meet all the expenses of the government and the service of religion, and a country which takes so much only from its subjects, leaving the cultivator four-fifths, would soon derive a larger revenue from the diminished rental of lands, than from any tax in excess of it, for the whole capital would necessarily be employed in its tillage and improvement, which is now abstracted in a thousand unseen ways, altogether unconnected with agriculture or commerce. There are two modes of considering the land rental of India: first, as it is paid by each individual proprietor; secondly,

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as paid by the country collectively: for if the amount paid by one class of proprietors is returned to another, to be distributed again to the people at large, the capital is not abstracted, but circulated through additional channels; and this is the case where the government is not exclusive in its religious persuasion. It was the case under the Hindu and Mahomedan governments, and was so also under the Portuguese, where the ministers of religion being of the same country, spent all their income in the country, either in agriculture, or on those who followed agriculture as a means of livelihood; but it is quite otherwise when the revenue is withdrawn by persons in no way interested in those matters, and in this view of the question, a heavy rental which passes through the hands of the servants of a state, and is not abstracted, is by no means so oppressive as a light assessment derived to a government which has no inducement to spend its acquisitions in the country, beyond the admonitions of justice and propriety. For this reason we find the mass of the people far more contented under their own oppressive governments, and infinitely more prosperous and happy than under the British. The fact is not to be doubted, as it regards the population in the aggregate, but not so individually; oppression and cruelty fall very grievously upon the individual, which yet may not be felt by the multitude; and it is from persons so aggrieved, that we are flattered into the belief of the vast superiority of our own government to that of the native powers. If those, who are so credulously disposed, would take a little tour into the provinces under native chiefs, and so far disrobe themselves of the haughtiness and complacency of British subjects, as to listen to a plain unvarnished tale, they would come away with very different impressions of the excellence of the system, which is so much commended, and that rigid discipline and stern uncompromising good faith and justice which we believe to be the stronghold of our security: we should be disposed to inquire whence this great difference arises, that men should prefer oppression, misrule, and misery, to that fair, smooth, even-handed justice, which maintains the cause of all the poorest and least important without discrimination of persons, against their wealthy superiors. Inquiry would inevitably convince us that there is something defective in the British revenue management which more than compensates for all the blessings of security, justice, and happiness. It is the insecurity of the foundation of all property, the silent abstraction of capital, and the reliance on the capabilities of a code of laws which was never enforced, but by our government.

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The parallel holds good in every class and order of society, and we know as a fact, that no native that can get a miserable pittance under a native master, will take service under a European. The cause is identically the same: they have the entire disposal of their time, and their earnings, under a native, which yet they have less enjoyment of, under a European: the poor menial who can get three or four rupees per mensem, will think himself but ill paid at eight or 10 rupees per mensem, from a European; and the reason is obviously this, that he can dispose of his time and the smaller salary with less drawbacks than he can the larger amount. Some short-sighted persons, are apt to adjudge this predilection to their own masters, to other causes: but any one who is anxious to satisfy himself upon this point will find all the shades of dislike to the high wages and service of foreign masters, from the poorest villager, to the peon in the cucherry, the temporary attendants of his household, and the regular servants of government: those who hold the last situations are esteemed the least by their countrymen, being considered by far the least independent, even among themselves.

The master key of all this is every where the same: for the agriculturist and the domestics of our households can make no progress beyond a certain point; they can feed and clothe themselves and their families also, but this is all: whereas in the native service, they can lay by, or increase their capital, and this, by degrees, surprisingly reconciles them to many hardships.

Many attempts have been made to estimate the probable profit remaining to the cultivator after the payment of his rental. Sir Thomas Munro was satisfied from his own calculations, that every thing in excess of one-third the gross produce, trenched upon his actual and necessary requirements. Mr. Colebrooke supposed two-fifths the utmost amount that could safely be required, allowing that one-half, with the advantage of second and third crops, was just sufficient to maintain the cultivator, and his family also, provided they assisted him in his labours. Mr. Chaplin in his report on the Dukhun, considers the ryot may have about five per cent. profit. Supposing his grain crops pay a rental of $\frac{2}{5}$ths and the *Baghaet* $\frac{1}{4}$th the gross produce, and this with all the little helps of his cattle, occasional hire for labour elsewhere, and the additional gains of his family in spinning, superior skill, or other industry. The effect of this rate of assessment, $\frac{2}{5}$ths of the gross produce, is to be seen in the general decrease of revenue in the Nerwa villages of Goojrat, and in no country can the change for the worse be so perceptibly

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traced as there, since the days of Akbar, when although assessed one-fifteenth less, and not burthened with *sayer*, or *puttees** of any sort, the revenue was from one-sixth to one-half more than at present: the condition of the ryots must therefore be far less favorable, and their profits little or nothing. Mr. Dunlop avowed to the government that from the most carefully prepared statements which he had been able to procure or frame, the present rates of assessment left the cultivator without the means of subsisting, and though he believed he must have been imposed on, he was convinced that the peasantry subsist themselves and their families on much less than he could imagine. The straits to which they are reduced are not merely those of coarse and homely fare, but even of that, he inclined to the belief, that the far greater proportion could not afford for themselves so much as one daily plentiful meal of any sort of grain throughout the year. In speaking of such privation we are to consider it as consequent to the continuance of that assessment, $\frac{2}{3}$ths, which was no sooner enforced, than it was evaded: for we cannot believe it possible that any body of men should ever submit to be absolute losers by husbandry, and when it passed that first limit of one-third the gross produce, the government was compelled to compromise the matter by allowing more land, or 23 square pands, (4616 sqr. yds.) to the beegah, for 20 (4014 sqr. yds.) So also, when the Mahratta farmers exacted anew, other demands, the cultivator resorted to other methods to enable him to pay up his rent, of which we can only learn the amount, by judging impartially of his continuing to cultivate at a certain yearly loss to himself. The exact limit to the rental of the land, with a possibility of its continuing to pay without the necessity of great remissions, is one-third the gross produce. But the exact limit which shall enable the country to increase in productiveness, in capital, in wealth, and in industry, is one-fifth; of which, a fair proportion should be assigned to those purposes for which it is expressly levied; and as we have no interest in the furtherance of idolatry or wickedness, it needs not much argument to show that such objects would best be fulfilled in the furtherance of education, the preservation of the public peace, and the administration of justice. An inspection of any of the old revenue accounts of Akbar's time would fully satisfy every impartial mind that the foregoing reasoning is substantially true, with a far lighter land rental, and no extra demands but the duties on commerce, of 5 per cent., the revenue was far

* Extra cesses.

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greater than has ever been realized by the British government; for this two-fold reason, the continuance of an enhanced rental, and the effects resulting from its exaction before we acquired the country, capital previously withdrawn.

We have now only to consider the progress of the Mahratta revenue system subsequently to the death of Seevajee, in 1693. In the northern districts, all those lands which were planted out with cocoanut and betel-nut trees, were classed under the head of *Baghaet*, and assessed according to the number and productiveness of the trees planted, at a fixed money rate; this addition was called *Jhar Jharora*, and constituted together with the land rental, the *Toka** or increased rental. In the southern districts these plains planted out in Baghaet lands were assessed in kind, at so many cocoanuts per tree, or so many seers weight of betel-nuts, the gross produce being divided in equal shares between the proprietor and government. For the rest, the land rental continued some time at a stay, nominally $\frac{2}{3}$ths of the gross produce, actually about one-third. About three years after Seevajee's death, a Kunoje Brahmin, by name *Kuloosha*, having ingratiated himself in the eyes of Sumbhajee, the son and successor of Seevajee, commenced overthrowing all that had been effected by the unfortunate Anajee Dhuttoo, the late Soornees, whom Sumbhajee had put to a cruel death from a belief that he had been implicated in a conspiracy against his life, exercised unlimited authority over the Konkun: he imposed a number of extra cesses on the land which, with the original demands, raised the land rental from about a half, to two-thirds of the gross produce. He was soon obliged however to consign the exaction of these impositions to others; finding a number of persons about him willing enough to exaggerate the real state of the country, he at first procured the displacement of the revenue officers left in charge by Seevajee, and Anajee Dhuttoo, and commenced farming out the districts which he entrusted to the management of his minions, armed with authority to collect for the government to the amount specified, two-thirds of the gross produce. The cultivators, landed proprietors, and public officers, being no longer able to discharge these heavy demands, resorted to a predatory life which entailed infinite misery and loss on all the surrounding countries, and gave rise to that spirit of lawless depredation and plunder, the evils of which many of us have witnessed at the distance of a century and

* This word had a very different signification under the Mahomedans and Portuguese, as will be seen in the accounts of the latter territories.

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a half. For six years this grievous injustice was suffered to go on without interruption; till in 1689, Aurungzeeb's officers having intelligence of the negligence and effeminacy of the Mahratta Court, came upon Sumbhajee and Kuloosha by surprise, at the little walled enclosure at Sungumeshwur, and brought them to Aurungzeeb, who immediately put them both to an ignominious death.

There were still many of Seevajee's adherents who had judgment and virtue enough to see the necessity of re-establishing the former order of things, and Raja Ram having been elected to the regency during the minority of Sumbhajee's son, every thing that could be effected was ordered; but the Seedee*, exasperated at the Mahrattas, and fearing the approach of the Moghuls, procured a new sunnud from the emperor Aurungzeeb for the confirmation of his jagheer, binding himself to the personal service of the empire, as admiral, and to convey pilgrims to Mecca free of charge: armed with this diploma, he attacked the Mahratta troops and defeated them, near Unjunvel. He possessed himself of the Soowurndroog and Unjunvel districts, and fort of Rajpooree and Rygurh, indemnifying himself for his former losses, by the land rental of these districts and a variety of cesses which differed only in name from those so injudiciously imposed by Kuloosha; this event took place A. D. 1699, nine years after Seevajee's death and shortly after Raja Ram's servants had entered upon their work of reform. These territories were for the most part under the Seedee's authority, until the year 1734, entrusted to the care of Khyrat Khan and other dependants of the Seedee. In the year 1736, the Seedee's possessions were limited to four and a half muhals of the Rajpooree Talooka, which were confirmed to him by a Tuhnama, or treaty with the Peshwa, and these he has held ever since†.

The land rental was now for the first time distinguished by the

* The first Seedee (Yakoot Khan) was an Abyssinian officer in the service of the kings of Ahmednuggur, or Nizamshahee government, who having dispossessed the last brave chieftain of the Koolee caste, Eetbarow, was invested with the hereditary jagheer of the entire Rajpooree districts, lying between the Savitree and Koonduleeka rivers. On the decline of that government, his successor, choosing rather to uphold any Mahomedan government, than a Hindu, and being unable altogether to stand by himself, tendered his services and fealty to Akbar, who appointed him, with the same immunities, high admiral of the Moghul empire—by a regular title-deed. The descendants of this family of Abyssinian pedigree, frequently intermarried, and keeping up their connection and intercourse with Abyssinian families, still retain their half possessions.

† A copy of this Tuhnama and a translation will be found with the Statistical Tables, at the end of this article.

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name *aeen dust*, two Arabic words, *dust* signifying rental, *aeen* the thing itself: this aeen dust, as it was now designated, had been heretofore collected wholly in kind, *aeen jinnus* the thing, or actual produce. The government rental was called *dhara*, if however any portion of the dhara remained due to government at the expiration of the year, it was usual in Seevajee's time to commute such due, for a money payment, at the market price of the day. The object of all the native princes, and Seevajee in particular, was to store up grain for their troops and followers, which in a country like the Konkun, could not easily be procured for large bodies, without great difficulty, or an expensive commissariat train, of which they rendered themselves almost independent by this method. The troops and followers were paid in kind, and had usually some lands allotted them in the neighbourhood, which in the language of Beejapoor, were styled *budul moshaira*, (Arab.) or, lands in lieu of pay, or service money. During the disgraceful government of his confidant Kuloosha, all these service lands had been thrown up, and plunder became a very general resource of livelihood to the military servants, companions, and freebooters, of Seevajee's army. Nothing had been conducted with that regularly organized and warlike preparation under Sumbhajee, which had distinguished and facilitated the distant forays of his predecessor. Seevajee's injunctions were all in view to the forage of his cavalry or the maintenance of his troops when the severity of the seasons precluded activity: these were all renewed at Sumbhajee's death; and may enable us to understand better the policy which dictated a different course to the Hubshee and Angria, of commuting the grain-rental for a money payment, since it is certain there could be no motive of enlightened government when so much misrule and folly prevailed in the camps and durbars of these marauding chieftains.

The Seedee made it a rule that three mun of every Khundee of *aeen jinnus*, that is $\frac{3}{20}$ths of the grain rental, should be commuted at the following rates.

For *bhat* (rice) and *Naglee*, (Cynosurus coracanus,) 22½ Rs. per Khundee, or 20 muns.

For *Wuree*, (Panicum Brizoides,)..... 17½

The following produce was commuted entirely at the rates subjoined.

Hureek, (Paspalum Frumentaceum,)..... 7 Rs. per Khundee.

Tilgore, (Sesamum orientale,) ..... 75 Rs. per ditto.

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Til Kale, (Sesamum orientale,)
Ooreed, ...
Toour, (Cytisus cadjan,) ..... } 60 Rs. per Khundee.
Til sale, (Sesamum,).....
Moong, (Phaseolus,) .....

Powte, (Dolichos lablab,) ....
Chowlee, (Dolichos lablab,) .... } 40 Rs. per ditto.
Koolid or *Koolthee*, (D. biflorus,)

Salt, *Meet*, ... 7 Rs. per ditto.

This was called *Tusur*, literally commutation; *Byldam*, or a tax upon bullocks kept by the petty traders, or others engaged in the transit commerce of the country, at 1½ Rs. for each bullock per annum, whether actually employed or not; previously, this tax did not exist. Mohturfa, a tax upon shopkeepers from one to 5 Rs. or more, according to their circumstances.

A further tax was levied on Baghaet lands beyond the half of the produce levied by Kuloosha; for each hundred cocoanuts allotted to the ryot or cultivator, as his half share, ten anas, and on each mun of sooparee or betel-nuts, by weight twelve anas.

The Seedee likewise brought into the government account the Sirdesh Koolkurnee's, or Anajee Dhuttoo's huqs, namely, half a mun of grain in each Khundee of *dhara*, that is, one-fortieth of the grain rental. This amount was the allotted stipend of Anajee Dhuttoo from Seevajee, and was defrayed from the Mahratta treasury, but the Hubshee collected it over and above the government grain rental, and made that which was a motive to Anajee Dhuttoo to increase cultivation and protect the cultivator, a ruinous tax. The Seedee further extended this principle to his new taxes, whether *Tusur*, a money commutation for produce in kind; *Mohturfa*, shop tax; *Byldam*, bullock tax; or *Baghaet*, gardens assessed at a fixed assessment in money, On all these items he levied half an ana per rupee or $\frac{1}{32}$ of the total amount of the produce commuted, over and above the former established rates. On all produce sold by weight, called *wujnee jinnus* he levied 1½ ana per mun of rental, or rather less than one-eleventh, over and above the established rates; lastly, one-sixteenth, or one ana in every rupee of hemp produced, over and above the established government rental.

Besides this, the Seedee made over the Sirdeshmookhee huqs, stipend, or fees, which had been paid out of the treasury, or rather the government share, by Seevajee to the proprietor, with the exception of two muhals Gohaghur and Huvelee Humzabad, which

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he reserved to himself. This stipendiary percentage was now for the first time levied from the ryot's share of the produce at the former rates established by Seevajee, namely, four anas per Khundee of all the grain rental, half an ana on commuted produce, or garden lands; 1½ anas on *Wuznee dust*, or produce sold by weight, as turmeric, sugar, sooparee or betel-nuts, &c.; on hemp, one ana per mun.

In the year 1744 Angria obtained possession of the districts included in the old Dhabool Soobhadaree, and held them till he was finally expelled by Lord Clive in 1756: not anticipating any permanent authority, he added still more oppressive burdens to the already straitened condition of the people. He introduced a new tax called *Putteebab*, or *Hubshee puttee*, being a cess of two anas for each rupee of revenue on laden bullocks, jack trees, *Bheerly mar*, Caryota Urens* *Bhundar Mhar**, *Oondinee* trees Calophyllum Inophyllum and† *Mohturfa*, likewise a cess on all kinds of grain, Hureek excepted, of three Rs. a Khundee. The latter paid two Rs. only, likewise on turmeric and raw sugar, six anas per mun, and four anas for hemp.

Angria further imposed a house tax of one rupee per head, per annum, which was levied from all alike, the village and district officers and persons of large property being alone exempted; widowers were charged half *ghurputtee*, or house cess.

Cattle if milked, were assessed annually at one rupee per head, if old or poor, but half a rupee per head.

From each *Mach*, or score of goats, one was exacted yearly, for the use of the forts.

As a number of persons were found to be profitable subjects for taxation, and did not come under any of the cesses above specified, they were distinctly taxed. Thus, the Gaolees, Dhungurs, Kharvees, and Daldees, the two former subsisting themselves by the rearing and tending of cattle, the two latter by the catching and preserving of fish, and navigating vessels along the coast, were brought under the operation of the new system whether they took to their proper pursuit or not, distinctions being made however in favor of any persons employed by the district officers who went by the names of

* Two fine descriptions of Palms from which the natives procure arrak or toddy, materials for manufacturing rope; from the toddy itself, sugar, and from the nuts, a useful oil for domestic purposes, for food, and for burning.

† From the nuts of which oil is extracted.

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Paluk, fed or nourished. The Gaolees and Dhungurs paid for their cattle, and a capitation tax for all adults and women house-holders: the cattle were assessed from 30 to 10 seers of ghee per head, if milch, according to their age and classification in the accountant's books. The capitation tax was ten seers of ghee, *(toop)* per mun for women being house-holders; or the half of this quantity for a widow's cess. The Dhungurs paid also from 8 to 15 anas per head for each milch buffalo.

The principle of exempting the heads of castes and trades from imposts, which had grown out of the abuses of former governments to be an established custom, was extended throughout the whole Konkun to every taxable class, and those who ought to have contributed, and were far more able to contribute to the public burthens, were allowed entire exemption in many cases, and were dealt with on the whole with a degree of partiality that betrayed the character of the policy which dictated each particular tax; on this principle, the Gowdas, Chowgulas, and Mookudums were excluded from the taxation imposed by Angria on the Dhungurs and Gowlees; and all who possessed great influence in realizing the government demands were likewise favored by the same privileges.

The Kharvees and Daldees were subject to a capitation tax in kind, as well as a particular cess on each boat, or fishing vessel, of whatever description: this averaged from half, to one mun of oil, *tel seepa*, per head, for all males from 15 to 60 years, and 1½ mun of oil per boat. The object of this tax was ostensibly to furnish oil without any charge to the government servants, and originated in their exaction of it from the fishermen without the authority of the rulers of the country; it eventually became a regular impost, and was commuted for a money payment which is still enforced by the British government.

No attempts were made to bring the innumerable wild and uncivilized tribes under the power of the revenue officers during the Moghul government, but as the country became more tranquillized, the Peshwa's officers introduced like imposts on each particular tribe according to its occupation, which they usually farmed out on account of the great difficulty and uncertainty of realizing it. In this way a much larger proportion of the whole population is now accessible to the government officers than heretofore, and all items so collected, and which swell the total amount of the *jumma**, must

* *Jumma*, the collective aggregate of all descriptions of taxes, cesses, &c. An Arabic term.

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first be deducted, before we can form any opinion of the comparative state of the revenue and land rental at different periods.

Whatever may have been the spirit which dictated these taxes, they are justly demandable in proportion to the agriculturist's rent, and do not appear to bear very heavily upon them; but the farming system, and the duties on salt, and land customs, prevent the most industrious from rising above the same condition of poverty in which we found them. They can easily obtain a subsistence by fishing, and find occupation in the small trading vessels on the coast, but they can find no time for agriculture, and must depend on the cultivators for the little grain they consume, for which they barter fish; as this pays a heavy duty as well as the grain, it is absolutely limited to their most pressing wants.

It appears that the government share of the grain, *(Aeen Jinnus)* had hitherto been received by the striked measure*, but after Seevajee's death, the revenue officers required it to be heaped. Angria renewed the former orders on the representation of the ryots, on which, by the collusion of the persons appointed to measure the grain, there appeared a deficiency, on remeasurement, by the pylee measure, of a fourteenth or somewhat less. To meet this supposed deficiency Angria imposed a tax called *wurtala*, that is, a further cess of three seers (three quarters of a pylee) in every phara of grain. The government produce in kind with this allowance, was lodged in the nearest government *Kothee*, or store-house, which was erected near the village temple. The store-house was a wooden building, raised about five or six feet from the ground, the sides planked, the roof tiled, usually about 30 feet by 20 and as many feet in height.

To compensate for the losses by vermin, called *Kothee-toot*, a further impost was levied of one seer on each phara, called *seer wurtala:* in contradistinction to the *Map wurtala (Map*, measure; *wurtee*, excess; *ala* come, Mahratta).

To meet the expenses of his vessels of war, which consisted of eight vessels of about four hundred tons burthen, with an extravagant proportion of men, Angria required a proportion of each ryot's produce at a low fixed price, without reference to the market price

* Small measures or aliquot parts of the bushel, phara, mun, and such like dry measures, should be heaped. The larger, as the bushel, phara, mun, &c. exceeding the ordinary power of one person to take up and fill with the hand, as also not being of a cylindrical form, should always be striked, or struck off even by a bar to avoid the great uncertainty and difference of heaping in vessels or measures of different dimensions, which in the case if the latter are square, or rectangular cubes.

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of the day. This extended to all kinds of grain but Hureek, which forms the last precarious resource for the subsistence of the very poorest classes, and was therefore in no great request, as an article of food, for the government servants. The amount of this impost was a twentieth in excess of each ryot's payment in kind, for which he received credit in the public accounts at the rate of half a rupee per phara, or ten rupees per Khundee of grain, and one seer of ghee for every Khundee of produce sold by weight indiscriminately, for which the ryots received credit in like manner at the fixed rate of three rupees per mun.

These vessels of war were supplied with rope by an impost on seven villages in the Gohaghur muhal, of two maunds 2½ seers, on every thousand nuts of the government share, for which credit was likewise given at the rate of one rupee per mun.

It may well be imagined how complicated each ryot's accounts had now become by these additional cesses: it was no longer possible for the ryots themselves to reckon them, and they were therefore completely at the mercy of the village and district officers, who, for such services, required also the same indulgences to them, over and above their demands. By this means the subordinate peasantry were almost annihilated, and the condition of the far greater part reduced to that of serfs, entirely dependant on some one individual, who gradually obtained by length of occupancy a title to the lands which had devolved on him by the necessities of the rightful owners.

It was probably at this period that the district and village officers first established themselves in those rights which they now claim as their ancient paternal inheritance, and as we see the like doubts existing in other parts of India regarding their existence before the Moghul government, it is fair to conclude that their origin was to be attributed elsewhere to like causes. In this manner every description of fee or emolument may be traced, by attention to the practice of the successive governments; for their demands were always a pretext for like demands on the part of their servants, and farmers of revenue.

The proportion of the produce commuted for a money payment had been fixed by the Seedee, at three mun per Khundee; Angria increased the quantity of grain, and reduced the rates: it was now reckoned at one-fourth the whole grain rental of each ryot. The comparative rates were fixed prospectively as follows, and

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may be understood with reference to the Seedee's previous regulation from the annexed table.

Tusur of Bhat according to Angria's system one-fourth or 5 mds. at 20 Rs. per Khundee.	Seedee's rate, 3 mds. at 22½ Rs. per 20 mds.
Tusur of Naglee, (Cynosurus Coracanus) one-fourth, or 5 mds. at 16 Rs. per Khundee.	Seedee's rate, 3 mds. at 22½ Rs. per 20 mds.
Tusur of Wuree, (Panicum Brizoides) 5 mds. at 13⅓ Rs. per 20 maunds.	Seedee's rate, 3 mds. at 17½ Rs. per 20 mds.
Tusur of Til Kale, (Sesamum orientale) Til sale, (Sesamum orientale,) Moong, (Phaseolus mungo,) Powte, (Dolichos lablab,) Kuduve, Chowlee and Koolid, for all the former, 40 Rs. per 20 mds. and the three last 30 Rs. per 20 mds.	Seedee's rate, 3 mds. at 60 Rs. per 20 mds.; 3 maunds at 40 Rs. for Powte, Kuduve, Koolthee.
One-fourth also til gore, at the rate of 50 Rs. per 20 pharas.	The Seedee's rate, 3 mds. at 75 Rs. per 20 mds.

On the whole, therefore, the ryots gained considerably by the new rates, and it is equally plain that the demand of grain for the use of the armed vessels was only a pretext for the state necessity, as two mun of the government grain was commuted for a money payment. It is supposed by the zumeendars that the abatement in the rates was made in consequence of the inability of the ryots to pay the sum fixed by the Seedee, but was more probably the consequence of fresh imposts established by Angria.

In this manner the Mahrattas carried on their exactions, their officers introducing successively as many cesses corresponding to them, in name and amount, while the ryots endeavoured by their collusion, or pretexts of losses by fire or bad seasons, to evade the government dues. By such methods the greater part of the landed property came into the hands of the Brahmins, Mahrattas, and Mahomedans, who certainly are not the aborigines of India, and could only have gained their present permanent footing by the slow but sure working of this system for many centuries.

Besides the foregoing, every transaction in which government engaged was made an excuse for new demands; the tradesmen were henceforth compelled to contribute a proportion of their manual labour, receiving while employed a daily subsistence: carpenters and blacksmiths were bound to serve one month every year, and received two anas in money, daily, or two seers of rice. Oil-makers

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were assessed at ten seers of sweet oil per head, this last impost was called *Shoobrat*.

During Angria's government, the privilege of stamping the coin, received in payment of the revenue, which had been given by the former Mahratta rulers to a Brahmin, was sequestered and brought into the government claims. Under this head one quarter of an ana was now levied on every rupee, excepting money cesses entitled *nuqdee bab*, and lands exempted by special grants.

The repair and maintenance of the hill forts furnished a pretext for another petty tax called *Karsaee*, which was levied from every cultivator in kind, and consisted of grass to thatch the public buildings, baskets, mats, sticks, and timbers from the cultivators; also vegetables, *veerlas*, (a kind of umbrella,) used by the Mahrattas, as a protection against the rain, firewood, torches, brooms, earthen vessels, and a variety of petty articles which each house-holder was obliged to contribute as they might happen to be required. This last tax was extended by the Peshwa's officers, subsequently, to every part of the Konkun from Kalian to Malwun, and has been partially commuted by the British government for a money payment, the greater portion being altogether discontinued.

This vexatious opening for oppressive exaction was carried to an incredible extent by the Peshwa's people, and every peon or underling considered himself entitled to help himself to any thing he might require, without the consent of the cultivator. It is in consequence of this grievous system, that so many complaints have been made against the servants of Europeans travelling through the country. They have seen their fellow-men pillaged with perfect impunity, and suppose that their employment by the sirkar, or under the sirkar's officers, gives them an equal right to exercise the same authority, without compensation of any sort. It may be long before the ryot can be brought to understand that he is not required to submit to such exactions, or our servants to practise them, and the latter will be very slow to perceive that in forbidding them, any one is a loser of their just rights but themselves.

It might be supposed that the natives of this country would at least make some distinction amongst those with whom they are on terms of equality and have known from their infancy: but this is far from the case; no sooner has a poor indigent cultivator mounted his belt, or become enrolled in the service of government, than he thinks it an unquestionable right to enforce his demands for any little article that comes under the head of *kharsaee*, though

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it were from his own relatives, and the same extortion is carried on through every grade, to the most wealthy proprietors and officers in the country.

There were imposts likewise for the Hindu festivals called *Dussara khurch*, and *Gokul Ushtummee khurch*; the former consisted of a fowl or goat for sacrifice; the latter, of a pot of butter-milk, which taxes were no further oppressive, but as they introduced an inquisitorial system into every cottage or family, and induced the people to secrete their property from the agents of Government, or bribe them to plead exemptions in their favour.

All trees, not cultivated, as the *Beerly Mhar*, Borassus Flabelliformis, the Elate Sylvestris, or wild date, and *Tar*, all palms producing toddy, were charged on the persons who drew the liquor, at the rate of six anas per tree; and those producing *Kath* or Terra Japonica were charged on the hearths of the Kathkurees, a class who manufacture it, half a rupee for each hearth.

Bullocks, or cattle of any kind, coming within the limits of the Konkun, were assessed at half a rupee per head: and the amount so levied, called *wunchuraee*, or the privilege of grazing in the forests: (*wun* forest, *churaee* pasturage.)

The last item imposed by Angria was personal service exacted from the low caste tribes and Mahars: these were required to serve in the forts, one month in the year, and receive their subsistence 2½ seers of bhat, or rice daily, from government. They were called *Rabte Mahars*; the gooroo or village priest was required to give a bundle of *pan* leaves (piper betel) every week, at the government cucherry, and the Kharvees and Daldees were bound to supply one man in every eight capable of bearing arms, to serve for eight months in the year on board the vessels of war. In such cases these persons were exempt from all other taxes, and were likewise free of all other requisitions for personal service, on any account whatever: they received 1½ maunds of bhat monthly, and one quarter of a rupee for *meet*, *mirchee*, salt and condiments.

The exemption from all forced service may enable us to understand how perfectly unwilling any of the natives would be, to contribute their assistance, where any such grant has been once made: nothing in fact would induce any people of this class to carry a burthen even for money, in any of the villages on the coast, as they consider it would be the forfeiture of a right which they had once acquired by a compact with Angria's government, but they would have no compunction, when in the service of natives or

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Europeans, in compelling the villagers who have never received such exemptions to work by compulsory methods.

Under the Mahratta rule, the system of compulsory service extended to all other classes, beginning with the lowest and poorest; and all artificers and trades-people were laid under contribution in some shape. This of course was soon brought to light under the British government, and has been gradually abandoned, in consequence of the repeated injunctions of the civil and military authorities; in process of time it will be effectually discontinued, and new means will be provided for the convenience of travellers and merchants, which at present are not foreseen.

In the year 1756, Lord Clive took Veejydroog; Commodore James, Soowurndroog; and Commodore Watson, Sindoodroog; from that time to the month of November, 1818, the Konkun, with the exception of Bombay and Salsette, the Portuguese viceroyalty and the petty chieftaincies of Angria, the Jowar Raja, the Hubshee and Sawunt warree desaee, has been under the Peshwa's officers; and the changes or reforms introduced, followed the temper or particular information of these persons: generally speaking, they introduced changes for the worse, and confirmed every injudicious practice which had been invented by their predecessors: there is therefore little account taken of Anajee Dhutoo's and the Punt Amatyu's surveys, though they form the ground-work of all the subsequent surveys.

The rates and names of the imposts differ in some respects in every different district, but the principle of all is the same, it may suffice therefore to state the most remarkable.

The most grievous of these was *Durbar khurch*, which was levied generally on the village, to enable the Durukdars to attend in becoming style at the Hoozoor or presence of the Peshwa, to meet the expense of complimentary presents, and the mamlutdar's own personal expenses, while away from his particular station. This was usually levied in money, but occasionally in kind, at the rate of two pharas of rice in the husk*, per rupee. The institution of this tax went down from the mamlutdar to the inferior officer of each district, and swelled the total amount to an enormous sum.

The Peshwa, on the representation of his ministers, disposed of the government grain at a fixed rate on any quantity purchased, but not exceeding one-fourth the total rental of each cultivator receivable in kind: with the former rates commuted by the Seedee, and

* That is, uncleaned, but cleared of the outer husk.

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Angria, they had altogether one-half their produce to pay in kind, one-half was commuted: this last was called *Tusur Furokht; Tusur* meaning commutation, *Furokht*, sale. The sum of money required for the grain so disposed of, was at the rate of 17 rupees per khundee of bhat, 15 rupees per khundee of wuree, 30 rupees per khundee of koolid, chowlee and cuduve, 40 rupees per khundee of moog, powte, til sale, ooreed, toour, and til kale; 50 rupees for til gore per khundee. The *Tusur* rates continued stationary.

So also the produce of articles sold by weight, was sold to the ryots at the following fixed rates: Betel-nuts, 5 rupees per mun; raw-sugar, or *gool*, 2 rupees per mun; *hullud*, or turmeric, 3 rupees per mun; *til gore*, sweet oil, at 5 rupees; coir, at 1½ rupees; and *til seempa*, oil for burning, at 3 rupees the mun.

Articles received by number were resold at the following rates: cocoanuts, 3 rupees per 100; kadjans, 1½ rupees per 100; rice straw, 1 rupee per 100 bundles.

This system of *Tusur Furokht* prevails in all the southern districts, Veejydroog, Rutnagiri, Unjunvel, &c. but varies in the rates. The proportion in Salsee, Veejydroog and Rutnagiri, and Ryghur, is one-half, though in the latter it goes by the name of *Tusur* only; the fourth or five mun in every khundee being established on the first rate, according to Angria's system; the remaining fourth, or five mun according to the rates introduced by the Peshwa's mamlutdars. In the Soowurndroog and Unjunvel districts the two items collectively amount, at present, to one-fourth only, though at one time the amount of *Tusur* and *Furokht* were severally one-fourth of the grain rental. In Rajpooree, and Ouchitgurh, one-fourth only is commuted, which is called *Tusur*; north of this, the grain is either received wholly in kind, or wholly commuted.

Among other changes, the Peshwa's officers attempted also an exact survey of the *wurkus*, or hill lands, and made several deductions and allowances; but the measure was attended with very little success, and these lands continue for the most part to be estimated, as before, either by the eye survey, or by the plough. The measurement where it was carried into effect was by the beegah or area of ground 25 sticks long, and 25 broad, with a further allowance of one quarter of a beegah in excess of each beegah, or 125 beegahs to count for 100 so measured. The *Dhara*, or assessment, on each beegah, was according to Anajee Dhutoo's rule.

The mamlutdars usually held their offices for a period of four years, and as they seldom exercised office a second time in the

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same country, made a point of realizing as large a sum as they possibly could under any pretence whatever; their object was therefore two-fold, to insist on as much in the shape of new, or unauthorized cesses, as they had ingenuity to extort; and to set forth all the difficulties of the ryots, or pleas for remissions and particular exemptions in order to shelter them selves from impeachment when called before the Peshwa for a final account of their stewardship.

Whatever may have been the amount brought into the treasury of the state, there can be little doubt that it formed a very small portion of the amount collected from the ryots. The introduction of this vicious system had become so general, from the highest dignitaries to the meanest servant of the Mahratta empire, since the decline of its power under Sumbhajee, that it gradually became a necessary consequence of arrival at authority, to judge of the talent, or fitness, of the government agent by his resources in eluding the vigilance of informants, and getting as much as he could out of every class under his authority.

In furtherance of this system, a body of men had gradually risen up, whose interests were completely identified with the most corrupt attendants of a despotic prince. It does not appear that the Mahrattas, as a body, had any such rights in the soil, or the hereditary offices they subsequently claimed under their princes who governed at the time the Mahomedans invaded the south of India. The state of anarchy and disorganization which ensued upon the defection of the Mahomedan deputies of southern India, from the Emperor of Dehli, in the first instance, and then from the recently established kingdom of Dowlutabad, contributed more than any other event to the effectual colonization of all those tribes, who had followed the fortunes of the princes of Rajpootana, and who, up to this period, sat perfectly loose to society, only waiting, as it were, till their prey had settled down, for an opportunity to make it their own.

We have nothing to show that the Mahrattas, the Mahratta Brahmins especially, had then either such extensive claims as they now possess, or that they were even reckoned with the people of the country. They first insinuated themselves into office, and then contrived to make the whole political machine work together throughout every part of the dominions, to which they had ready access, so as to favor the aggrandizement of their own peculiar possessions. Taking advantage of the natural indolence of the higher classes of

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Mahomedans, they diligently cultivated a knowledge of the particular subjects which gave them a preference in the discharge of the Revenue functions. The most intricate questions were familiarized by early education, and an aptitude at perplexing or mystifying a simple rule, was considered the highest effort of wisdom both in political and religious matters; hence, the Brahmins soon obtained an influence which easily passes with the indolent or illiterate for *authority*, and by their combined efforts established themselves in all those rights which we now find them possessed of.

So far as the ancient institutions could consist with their own views, they appear to have made no innovations, but every measure was made to square, as if by previous arrangement, to the claims and interests of the first or privileged order, and no jealousy could exceed that with which they withheld information connected with the real interests of the state.

Had the revenue and district officers who are styled *zumeendars* or *wuttundars*, existed under the ancient government of the Hindus, they would have been expressly specified in their law books and deeds, as possessors of rights independent of the prince, but there is no mention made of them, otherwise than as temporary servants of the state, who had an implied privilege of hereditary succession, so long as they gave satisfaction to their superiors, and fulfilled their obligations of service, as the cultivator his, by rendering a portion of the produce of the lands he occupied in return for its usufruct.

Through the indolence of the first Mahomedan conquerors, the more intelligent Hindus were led to a perception of their strength, in construing the individual rights of property to their own advantage: the progress of their acquisition of them was a work of time and labour, but it would never have been discovered, had not the weakness of the Mahomedan governments led to the foundation of new Hindu principalities, which required some regard to the former order of things.

We are therefore to distinguish the progressive changes which supervened, if we would understand the relative claims of the state and zumeendars to the revenue and other privileges issuing out of the soil: they are seen to have originated, in the foregoing account of the Mahratta system, in a series of oppressive innovations, without express object or plea of expediency, beyond the will of an arbitrary prince. The exactions of the zumeedars were usually concurrent with the general receipts of the state, as unauthorized, or cognizable only by the chief authority.

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The only remaining reforms introduced by the Peshwa's officers which it is necessary to explain more particularly, are the Behura rates, or rates at which the portion of the government rental, termed *Furokht*, was commuted, or any further portion not required by the district authorities for the maintenance of the garrisons, public servants or followers; secondly, the *Nugdee Cowlee Sherista*, or fixed money rentals of *Bhagaet*, or garden lands, hitherto received in kind. These commendable changes were brought about at the instance of the Furkia family, who occasionally resided in the Konkun, and undoubtedly had the greatest influence of any persons about the Peshwa's court, both with the celebrated Nana Furnavees, and the Peshwa himself.

Until 1790, the Peshwa's officers had been in the practice of receiving all grain not included under the head of *Tusur* or *Furokht*, into the *Dasthan*, or *Kothee*, from whence it was transported to the different depôts of troops, to be distributed in lieu of pay; but the quantity being more than sufficient for such purposes, the Peshwa ordered a fixed rate of commutation to be established throughout the whole of the districts from Kullian, south, but it was optional with the ryot to pay in kind, or at the Behura rates, whatever did not come under the head of *Tusur*, or *Furokht*.

The Behura rates were then probably the same as the market prices of the day; they are now considerably higher in consequence of the cheapness of grain, and the import of it from Malabar, and Canara, into those districts which before were supplied almost exclusively from the Konkun. Such is one of the undoubted benefits attendant on the amalgamation of all the Provinces into one government, and all subordinate to one rule.

The Rates were as follows :

Bhat, ...	20 Rs.	per khundee.
Naglee, ...	16 Rs.	ditto.
Wuree, ...	13 Rs.	ditto.
Tilgore, ...	50 Rs.	ditto.
Toour, ...	40 Rs.	ditto.
Koolid, ...	30 Rs.	ditto.
Kuduve, ...	30 Rs.	ditto.
Til Kale, ...	40 Rs.	ditto.
Ooreed, ...	40 Rs.	ditto.
Til sale, ...	40 Rs.	ditto.
Powte, ...	40 Rs.	ditto.
Chowlee, ...	30 Rs.	ditto.

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The Nugdee cowlee rates were fixed at four anas per cocoanut tree, or one ana per suparee tree, for a period of years; generally five or seven, after which the full rent was taken as for baghaet lands.

The only regular surveys of the lands were those instituted by Mulik Umbur, Dadajee Kondeo, Anajee Dhutoo, the Punt Amatyu, and Gunesh Punt. Subsequently partial surveys were made during the early part of Nana Furnavees' administration, between the years of 1772 and 1790, but these did little more than change the classes of the inferior lands, and bring some little new land into the village assessment. The government claimed all waste land unconditionally, as their own property, and leased it out without any reference to the *khots*, or *meerassee* cultivators. It is said they did so on the plea of its being disputed property, but the assertion is not borne out by any plea of a contested interest by the village communities, or *dharakuree* and *koolarug* ryots.

After this period, the corruption of the Peshwa's court became so general, that the office of Koomavishdar was sold or entrusted to some profligate unfit person, who had plausible schemes to recommend him to notice, either for securing, or increasing the revenue received in former years. The usual resort of these persons was to farm, or sublet their own farms, and the subordinate agents threatened the villages with a new survey from year to year, which was relinquished for a compromised *chur*, or increase on the preceding rental.

It is no wonder that such a train of events for 20 or 25 years, had a most pernicious effect on the cultivation, and more particularly on the general morals of the people. The produce of the very best lands is said to have diminished beyond all calculation, and it is not to be expected that any improvement can take place till every impediment which has been gradually growing out of such abuses, is entirely removed.

The foregoing exhibits a full account of the progressive advances of taxation over and above the original land rent which was customary under the former rulers of India. Although the British Government have made great reductions in the most oppressive and unjustifiable taxes, there is ample room for further reductions. The system of the Mahrattas is still for the most part the same that is now pursued: it is therefore extremely improbable that the circumstances of the cultivator will make any advance beyond a precarious and scanty subsistence: the length of time that has elapsed, added

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to the consequences of our rigid severity, and the previous malversations of the Peshwa's farmers, have deteriorated the general circumstances of the lower classes of cultivators, and deprived them of every thing in the shape of capital, so that the government is a sufferer, both from their poverty, and the neglect of all advantages that might be discovered by a new survey.

Nana Furnavees had it in contemplation to simplify the whole of the land revenue by a general assessment in money, according to the beegahs cultivated, but it was never carried into effect beyond the Kullian Prant. This tract of country, with some few exceptions, was surveyed and assessed between the years 1772 and 1790, all land of the first quality, at 5 Rs. 13 anas per beegah: land of the second quality, at 4¾ Rs., and of every other description, on which rice was raised, at 3 Rs. 11 anas. The survey was conducted by the Sursubhedar Sudashew Kesho, and was concluded for the turufs of Tuloja and Waje of the Panwel district; for Moorbar, Gorut, and Korkuda, of the Korkuda talook; for Sonalla, Doogar, and Bhewndee in the Bhewndee turuf; in the Umburnath, Wasoondree, Bare, Konde, Khambale, muhals of Kullian, in Wurede turuf; Shewre, Uliannee and Rahoor muhals, dependant on Sakoorlee. There are therefore three descriptions of rental; 1st, *Dhemp* or *Koomula*, being an assessment by the total produce in kind, which in the northern districts is commuted at the market price, and in the Malwan district is put up to auction; 2nd, The Begownee money rental, and third, the Begownee rental received partly in kind and partly in *Tusur*, (the Hubshee's commutation rates,) part in *Furokht*, (the Peshwa's fixed sale prices:) all the produce in kind is disposed of by auction.

The amount of the land revenue is about one-third the gross produce: with the extra cesses, it amounts however to about 70 or even 80 per cent. on the line of coast from Basseen to Duman. The cultivators continue to pay the rates fixed by the Portuguese; that is, one-half to the immediate proprietor, who is charged with a small *foro*, or quit-rent: the produce and revenue differ so little in quantity from the rates established by Anajee Dhutoo, taking lands of the same name or quality by way of comparison, as to lead to a general belief that Anajee Dhutoo's rates were fixed with reference to Mulik Umbur's at a previous date: the assessment varies from 6 to 32 muns per moorah.

Of the more ancient systems little remains, and that is now principally confined to the immediate neighbourhood of Jowar, which the Peshwa's people had a particular dread of examining,

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from fear of the Koolees: it consisted in a certain stipulated sum for a certain quantity of ground, and even now, is not very regularly or punctually enforced.

In the Kullian district the *wurkus* land is called *Rubbee*, and is assessed at 1½ rupees per nominal beegah, that is the estimated quantity equivalent to a beegah, with a due allowance for rock, and underwood; this description of land is far more fertile, however, and altogether of a better quality, than land turned to the same uses, in raising nachnee hemp, khorasnee, til, naglee, &c.; but no distinction is made where all the land is computed by the seed required to sow it, except in the diminished rates.

Generally speaking, the assessment by the fixed money rental is extremely light, as is that by the estimated produce throughout the northern and southern districts: there are also few extra cesses beyond the land rental, but they are not in so flourishing a condition as the districts where the payments are made up of a great variety of imposts: the reason appears to be, a want of population, cattle, and persons of substance, perhaps in some measure also, the great scarcity of water, and the consequent unhealthiness of the wastes and forests.

Many of the principal officers of the Peshwa's court were natives of the districts of Soowurndroog, Unjunvel, and Rutnagiri; they had considerable estates there, and expended large sums in their improvement: it is to this most probably that the superior degree of success in the culture of rice and garden lands is mainly ascribable, and to the greater affluence of the inhabitants generally, the individual members of whose families are found, in greater or less numbers, in the establishments of every great person throughout India. The money they hoard up in such foreign service is spent in some manner amongst their own people, and a large amount finds its way to the pockets of the agricultural classes.

The general amount of the land revenue, as will be seen on reference to the official returns for a series of fifteen successive years, is very variable*: the fluctuation is chiefly owing to the difference on the auction returns of grain sold. The demand for grain is altogether uncertain, being affected by partial droughts in all parts of India, and is supplied as occasion requires from Malabar and other coast districts, and introduced to the interior by the innumerable rivers, intersecting the Konkun, accessible to vessels of small burthen.

* See Table of the Revenue for fifteen successive years in the Appendix.

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In bringing this account to a close, it appears to me, that there are three principal objects to be attended to, in order to promote the general interests of the cultivators and government, to revert to the original ancient rule of taking no more than the rent, that is, one-fifth of the gross produce: to collect that fifth by commuting it at the market price of the season; to ascertain the produce by periodical surveys at intervals of five, or seven years, on a correct measurement and valuation of the lands, with a correspondent enumeration of the people; by this means, it would appear satisfactorily whether any, and what proportion of capital was abstracted from the ryots, and a very accurate estimate be formed in process of time of the ratio of the wages of labour, to the rent and qualities of the soil.

Lastly, that a just proportion of that rent should be set aside, as it was in its original design, for the improvement of the country and inhabitants, in any way most suited to the intentions and character of the British Government, whether in the construction of roads, the repair and embankment of tanks, rivers, or ghats, or encouragement in the shape of tukavee advances on loan or respondentia; in the cultivation of useful timber trees, or the clearing and draining of wastes, and salt marshes; in the appropriation of any quantity to charitable designs, as vaccination, infirmaries, ophthalmic institutions, and, lastly, education. Under such a system it is not to be doubted for a moment that a very few years would produce a surprising change, both in the mass of the people, and the revenues of the country; forasmuch as labour, intelligence and the moral character of a people contribute infinitely more to the production of wealth, than any amount of capital, however judiciously laid out, even on the best descriptions of land: it is such labour alone which creates wealth, and although the experiment may appear hazardous, it is borne out by the concurrent testimony of present and past ages.

Belgam, 16th April, 1835.

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APPENDIX.

No. I.

Treaties made between the Portuguese Viceroy of Goa and the Mahrattas or Peshwa.

FIRST TREATY.

An agreement made by Venkata Rao and Dadajee Rao, generals of the magnificent Bagi Rao Prudhan, the Plenipotentiaries of the Portuguese states being present, namely, Antonia Carneiro de Aleacoa and Joze Pedro Emaus, on the 17th of April, 1739.

That the Portuguese states shall contribute seven lacs of rupees, each rupee being equal to two *Xerafins* of Goa coinage, for defraying the expenses made by the forces at present occupying their territories, in order that the aforesaid forces may break up their camp: and it is stated as follows:—As soon as the stipulations are signed by both parties, two Portuguese of note shall be sent, bringing with them two lacs of rupees for defraying the first instalment: that the army immediately after having received this first instalment, shall decamp, and that all the troops, which are to be found in* Salset and Bardez, shall quit these two provinces and abandon the fortresses they may hold, thus leaving the country free to be inhabited and cultivated by its proper inhabitants, and that the main body of the army shall go up the ghats, leaving behind one chieftain with some people beyond the dominions of the Portuguese, where also the two Portuguese shall remain as hostages, until the second instalment be duly paid.

That within a fortnight the second instalment of three lacs of rupees shall be made up, payable in money, gold, silver, coral, cochineal and other different goods, and that after having paid this second instalment, the Portuguese shall deliver up an obligatory writing for the payment of the two other lacs which are left, to be

* The province of Salset extending south from Murmagom, harbour of Goa to Cab di Ram—Cape Ramas.

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paid within six months; and that, for assurance of this last instalment, two natives of the *Camaras Geraes*, municipal members of Salset and Bardez, shall be delivered as hostages, and they shall remain in such place as may be assigned to them until, in effect, the said instalment shall be made good; and that, as soon as the aforesaid obligatory writing shall be delivered up, together with the said hostages, the two first *white* men who had been given as sureties for the first five lacs of rupees, shall be at liberty to return home. At Raia, on the 27th of April, 1739.

(Signed.) ANTONIA CARNEIRO DE ALEACOA, JOZE PEDRO EMAUS.

SECOND TREATY.

Stipulations of peace agreed to between the magnificent Bagi Rao Prudhan, and the Portuguese states, in presence of Venkata Rao and Dadajee Rao, generals of the magnificent Bagi Rao, and Antonio Carneiro Aleacoa, and Joze Pedro Emaus, Plenipotentiaries of the said Portuguese states, on the 27th of April, 1739.

That the provinces of Salset and Bardez, with all their fortresses, belong to the Portuguese states, and in order that the same states may enjoy them, they shall be evacuated by all the troops at present occupying them; but with declaration that from the royal quit-rents (Foros Reaes) paid every year by the villages to the said states, 40 per cent. shall be deducted and delivered to the magnificent Bagi Rao Prudhan.

As the said provinces of Salset and Bardez are found to be ravaged by the frequent irruptions of native armies, the magnificent Bagi Rao Prudhan, and his chieftains shall fulfil the *seguro*, and *quito*, the states may have granted to the villages :—that the islands of Karjooen and Panelem shall be delivered up to the Bhonselo, who shall be released and continue exempt from a contribution to the states of 1000 Xerafins (500 rupees) yearly, as promised in the stipulations made in the time of Siva Bhutt, and that a paper shall be given to him showing that he is exempted from paying the aforesaid sum.

That the prisoners of the provinces del Norte Basseen, Sashtee*, Chewul, northern districts of Goa viceroyalty†, and of the provinces of Salset and Bardez, including also the Negros, shall be set free by both parties without any ransom, and that the engagements

* The island near Bombay. † Perna, Beecholim and Sanklee.

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or bonds which any of the said prisoners might have made for his ransom, shall be delivered up to the states and shall have no effect at all.

That the merchants of Goa shall be allowed to trade freely in the territories of Phonda, now subjected to Bagi Rao Prudhan, and they shall not be compelled to pay more duties than were always usual; that the said merchants shall be allowed also to convey their goods by water on the river, and enjoy the liberty they always have had heretofore without any alteration.

That the Portuguese states shall not intrude into the territories of the magnificent Bagi Rao, but on the contrary, they shall maintain with them a good intercourse, and the magnificent Bagi Rao, and his chieftains shall act in the same manner towards the dominions of the states of the Portuguese.

That under these conditions, there is established a firm peace between the Portuguese states, and the magnificent Bagi Rao, as also between the same states and Ramchundra Sawunt, and Jairam Sawunt Bhonsla, and Sur Dessaees of Koodal, whose Brahmin or officer Nurba Shenwee, son of Sivajee Shenwee, was present in this army, at the execution of the act of settlement in these stipulations, in which also he is comprised, in consequence of the protection of the same magnificent Bagi Rao. Done at Raia, on the 27th of April, 1739.

(Signed) Antonio Carneiro de Aleacoa, Joze Pedro Emaus,
Ministers plenipotentiary on the part of the Viceroy of Goa.

No. II.

Tuhnama or Treaty of Adjustment entered into between Ballajee Vishwunath Peshwa, and Seedee Yakoot Khan of Jungeera: on the conclusion of hostilities, A. D. 1732.

On the 2nd of Shaban *Soorsun* 1133, during the government of Seedee Abdool Rahman, a Treaty or *Tuhnama* was formed between the Junjeerkur and Peshwa, respecting the system of governing the joint countries, which system is even yet observed, and remains in full force.

The Treaty issued from the *Rekht khana* (store of household furniture and garments) of the Fort of Juzeerut*, Dunda Rajpooree

* Juzeerut, an Arabic word variously applied to an island, oasis, or insulated tract of country surrounded by foreign lands.

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in the *Soorsun* 1133, A. D. 1732. The ryots and cultivators of the different muhals have suffered grievously and ruinously from calamitous distresses and repeated disturbances, whereupon the whole of the zumindars and ryots of all the nine muhals appeared and submissively represented that unless a treaty is formed between this government and the Peshwa, the country will never be restored to the enjoyment of peace, tranquillity and happiness, and more particularly the fields will never be cultivated; therefore on hearing their petition it was incumbent on these authorities to satisfy and quiet their subjects and restore them to that peace and tranquillity; in consequence whereof from the present year the following mode and systems were jointly adopted for the future to conduct the affairs and collect the respective and proper revenue of all the following eleven muhals, viz.

1. Mamle Tule, exclusive of the Kusba* (chief town.)
2. Tupa Nizampoor, excepting the Kusba.
3. Tupa Goregaon, excepting the village Oonegaon.
4. Purgunna Nadgaon Moorood.
5. Purgunna Dive.
6. Purgunna Gosale, excepting the Kusba.
7. Purgunna Beerwadee, excepting the Kusba.
8. Tupa Govele.
9. Tupa Mandle.
10. Purgunna Sreevurdhun.
11. Purgunna Mhysle.

This is the treaty for the arrangements of the abovementioned eleven muhals, and it contains and comprehends the following claims, articles, and conditions.

1. Whatever jumabundy (revenue assessment) is to be made in the abovementioned muhals, must be made with the joint consent of the executing parties (both governments). The officers of both governments must attend to it, and it must be done by their calculation and estimation; and whatever agriculture and sown fields, gardens, sayer, or variable impost, including moh turfa (taxes annually received from shop-keepers and artificers), zureebe gowlee (annual taxes received from butter and ghee makers from the produce of their kine), and kowls (waste land) allowed by government to be cultivated and enjoyed by ryots for so many years: after the expiration of the time specified in the *kowl* or lease they must

* Kusba (a chief town); Mowje, a village; Wara, Para, a hamlet; Mujre, a small village; Poora, a suburb.

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pay in the rent thereof at the rate settled and mentioned in it. And whatever be the produce, rents and income of the aforementioned items, the officers of both governments being stationed at each muhal must receive it half and half equally; and if they think proper they may for the future let out the sown fields and gardens by farms or *Muktuhs* (contracts), and if any where the measurement and survey of land is required, they both must attend and receive half and half produce equally; whatever muhals adjoin the Peshwa's dominions, and are settled by them, their Vetbeegars* and all other Babuts (as to fowls, cucumbers, pompions, &c.) they must take, receive, and collect: whatever muhals are assigned the Seedee and settled for him, that Vetbeegar and all other Babuts we shall take, receive, and collect; and if the officer of any government in any muhals shall collect more than the half of the due, he is liable to be called to account and make good to the other the deficiency of his half, in short they must receive the whole income half and half. Should any of our sepoys go on any business into the country, he must first apply to the Sooba of Tula, and take with him a sepoy from this Sooba; if any sepoy of the Peshwa's government shall have any business in this country, he must first apply to our Sooba at Rajpooree, and take thence one of our sepoys with him.

The undermentioned muhals are assigned to each government as follows.

To the Seedee's Sirkur, 5½ muhals, namely:

1. Purgunna Nadgaon.
2. Purgunna Sreevurdun.
3. Purgunna Dive.
4. Purgunna Mhysle.
5. Tuppa Mandle.

Half of Tuppa Govele, being fifty villages; one village named Varouly is excepted, it being the Eenam of the Deshmook: and the remainder, forty-nine, were divided half and half, 24 villages and ½ being the share of this government as follows:

To the Peshwa Pundit Prudhan's Govt., 5½ muhals, namely:

1. Mamle Tule.
2. Purgunna Gosale.
3. Tuppa Nizampoor.
4. Tuppa Goregaon.
5. Purgunna Burvadee.

Half of Tuppa Govele, being fifty villages; one village named Varouly is excepted, it being the Eenam for the Deshmook: and the remainder, forty-nine villages were divided half and half, 24 villages and ½ being the share of the Pundit Prudhan's or Peshwa's government as follows:

* Forced service or labour exacted by the Mahrattas of all labouring classes,—one day's gratuitous service in every eight from each cultivator's household.

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1. Mowje Ambet.	1. Mowje Dabole.
2. Mowje Soorgaon.	2. Mowje Tolboodrook.
3. Mowje Vamve.	3. Mowje Bhanddiulee.
4. Mowje Lipnee.	4. Mowje Sunderee.
5. Mowje Kole.	5. Mowje Sapam.
6. Mowje Kunghar.	6. Mowje Tolkhoord.
7. Mowje Khamgaon.	7. Mowje Karikara.
8. Mowje Lep.	8. Mowje Nandree.
9. Mowje Sangnud.	9. Kusba Govele.
10. Mowje Poorar.	10. Mowje Dhaimvalee.
11. Mowje Vhadgur.	11. Mowje Chanddore.
12. Mowje Moodre.	12. Mowje Siraolee.
13. Mowje Mauzraone.	13. Mowje Tarane.
14. Mowje Koortoode.	14. Mowje Vankee.
15. Mowje Shile.	15. Mowje Kachaler.
16. Mowje Punuderee.	16. Mowje Madhegaon.
17. Mowje Manddatne.	17. Mowje Hurdee.
18. Mowje Kharvat.	18. Mowje Kussindee.
19. Mowje Varnat.	19. Mowje Koomsed.
20. Mowje Vangnee.	20. Mowje Nawassee.
21. Mowje Pajtee.	21. Mowje Fullanee.
22. Mowje Salegur.	22. Mowje Hurkool.
23. Mowje Vagrhe.	23. Mowje Alsoonde.
24. Mowje Tamane.	24. Mowje Palsup.
25. Mowje Kolmandle, (one half.)	25. Mowje Kolmandle, (one half.)
24½	24½

3. For the collection of land and sea customs the officers of both governments should be stationed at the usual places; whatever may be the produce therefrom, it is to be divided also half and half, reserving the privilege of the sea customs of the port of Rajpooree to be entirely collected by the Seedee's government, and also that of the port of Roya, entirely by the Pundit's (Peshwa's) government; excepting these two ports the income and produce of the rest, *in toto*, are to be equally divided half and half, and whatever be the income arising out of fines and mulcts for adultery*, (fines imposed on adulterers male or female,) that also

* Known in Goojrat under the head of Chaimhoree, literally, Skin-stealing. It was rated very high in all the cessions of the Peshwa to the British government: in 1817 in the Duskoroee Purgunna seventy-five thousand rupees annually. It was always looked upon as one of the most iniquitous of the Mahratta resources for raising public money; and the informants were frequently stoned to death, or torn in pieces by the populace, as was Gazeeram, a Brahmin at Poona in 1760.

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must be divided equally, half and half, and in case of the servants of either governments being fined, the fine so imposed on them, must be collected by their employers, masters, or governments.

4. In exchange for the port of Rajpoore, the Pundit (Peshwa) was allowed the entire and full enjoyment of the 5 (five) undermentioned villages with their entire income, rents, &c. and one only seaport of Roga.

1st, Kusba Tule; 2nd, Kusba Gosale; 3rd, Kusba Beervadee; 4th, Kusba Nizampoor, and 5th, Mowje Oonegaon in the Tuppa or district of Goregaon. The sea customs of Roya are also entirely allowed to the Pundit, but its other revenue, rents, &c. are to be equally divided half and half.

5. In exchange for the port of Rajpooree, the Pundit Prudhan is allowed the full enjoyment of five pents, or kusbas, and the sea port of Roya; therefore it must be understood that whatever things and merchandize come and go from Yacootnuggur, (or Juzeerut province) although agreeably to our agreements the duty thereof is to be collected at Mera, or at other stations, the pundit nevertheless is not to interfere with any, salt only excepted.

6. The tolls of passengers, and goods, both of the ferry-boats of Rajpooree and Moorood, are to be the entire property of this (Seedee's) government, exclusive of the customs, but the tolls of all other ferry-boats at different places belong to both governments, together with the customs collected on the merchandize imported and exported by and through these ferry-boats, and also the customs collected on the goods imported and exported by Rajpooree and Moorood ferry-boats is to be divided half and half between both governments, but the Pundit's government is not to interfere at all with the passage-money of these two ferry-boats, (Rajpooree, and Moorood.)

7. Whatever balance of revenue department or of fines, levied in criminal and other cases, shall or may now appear to be due to both governments on the day of executing this treaty, the ryots applied for its remission and exemption—therefore although in the year last it has been graciously ordered that they should be exempted and excused, and the declaration to this effect had been previously issued, notwithstanding it is declared that the people and zumindars may and should in virtue of this declaration peaceably and happily come to their respective places and residences, and people the country, and cultivate the fields, and whatever is due by them for the past in the aforementioned way is declared to be remitted, and cancelled, and they are to consider this to be a final order and recapitulation of the same.

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8. Whatever merchants from the ghats and Konkun shall come to Yacootnuggur (Juzeerut) with their merchandize, and will proceed from this, the regular dues or the custom on their respective goods is to be collected by both governments only at Mera, or any other place that may be fixed for this purpose.

9. Whatever ship or vessel belonging to this (Seedee's) government may go to any of the Pundit's ports or to the ports of their dependents, it is to be safely allowed them to touch at, and to arrange their affairs there, and take in cargo or every requisite for its lading, or provisioning, exempt from all duties and customs: in accordance with this, the like will be also observed with all the vessels, or ships belonging to the pundit's government, whenever they may touch at this or any ports of its dependants.

10. Whatever persons, or the families of any one, being the servants of either government, shall appear to be in confinement, or imprisoned by either government, it is agreed that they are to be liberated by the respective governments.

11. The income of the provinces of Nagotna, Ushtummee, Seemuhul, and Palee is divided into two shares; one-half is to be received by the Mahratta, one-half by the Busalatpuna. It is agreed that it should continue, and the Seedee not interfere.

This treaty is formed in the above manner, consisting of the aforementioned eleven articles, all of those being agreed to and ratified by both parties: therefore both must quietly observe its contents, and never deviate therefrom. Executed by Dilavur Khan in conjunction and agreement with Ragojee Naik Darekur Afrad, on the 2nd day of the month Shaban, in the year 1133 Soorsun, A. D. 1732.

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No. III.

Authentic account of the Land Revenue, Sayer or variable Imposts; Land and Sea Customs of the North and South Konkun, (9755 Sq. Miles) under British administration, for a period of 15 years from the date of its first acquisition by Conquest.

Years.	Land Revenue. North and South Konkun. North.			South.			Total.	Sayer or Variable Imposts. North and South Konkun. North.			South.			Total.	Land Customs or Transit duties. North and South Konkun. North.			South.			Total.	Sea Customs. North & South Konkun. North.			Collective amount land-revenue, sayer, and customs.
	Rs.	q.	r.	Rs.	q.	r.	Rs.	Rs.	q.	r.	Rs.	q.	r.	Rs.	Rs.	q.	r.	Rs.	q.	r.	Rs.	Rs.	q.	r.	Rs.
1819-20	13,57,822	1	24	13,20,154	3	25	26,77,976	2,62,001	2	58	2,16,702	1	06	4,78,703	2,03,381	3	22	70,442	2	75	2,73,823	4,11,833	..	37	38,42,335
1820-21	12,52,476	3	45	11,64,433	2	79	24,16,909	2,74,262	3	02	2,19,202	..	45	4,93,464	1,85,754	3	72	98,504	..	35	2,84,258	3,98,712	1	32	35,93,343
1821-22	11,61,699	2	86	11,52,157	2	51	23,13,856	2,54,213	3	55	2,29,574	1	07	4,83,787	1,80,354	3	45	75,261	1	90	2,55,615	4,26,504	3	02	34,79,762
1822-23	11,37,210	..	80	10,56,593	..	15	21,93,803	2,22,747	2	08	2,29,370	1	48	4,52,117	1,91,089	2	36	83,912	..	07	2,75,001	4,69,516	1	19	33,90,437
1823-24	11,98,282	..	64	11,78,045	3	46	23,76,327	2,16,698	2	86	2,75,699	2	16	4,92,397	1,44,512		52	64,962	1	20	2,09,474	4,55,015	1	15	35,33,213
1824-25	12,03,406	2	76	6,76,310	..	02	18,79,716	2,11,419	1	95	3,02,605	1	41	5,14,024	1,35,407	3	73	50,791	..	28	1,86,198	3,36,675	1	43	29,16,613
1825-26	11,63,811	..	13	10,84,129	3	45	22,47,940	2,52,584	3	59	3,27,600	..	91	5,80,184	1,37,308	3	57	50,970	1	10	1,88,278	4,46,927	3	65	34,63,329
1826-27	12,38,904	1	59	10,95,378	3	24	23,34,282	2,35,972	3	76	2,73,481	..	37	5,09,453	1,45,458	3	48	52,254	1	47	1,97,712	5,42,226	..	37	35,83,673
1827-28	11,92,717	..	61	11,90,914	3	90	23,83,631	2,70,354	2	66	1,54,591	2	43	4,24,945	1,80,021	1	62	41,692	..	90	2,21,713	4,86,313	..	75	35,16,602
1828-29	10,08,259	1	67	10,70,198	3	96	20,78,457	2,88,181	2	81	2,41,306	0	39	5,29,487	2,43,166	2	98	47,876	2	62	2,91,042	6,59,967	1	..	35,58,953
1829-30	10,65,833	3	64	10,55,451	3	48	21,21,284	3,22,489	1	21	2,80,647	3	05	6,03,136	2,28,269	..	27	47,378	2	08	2,75,647	6,48,269	2	56	36,48,336
1830-31*	20,76,897	..	49	..	..	..	..	6,06,433	3	85	..	..	..		2,70,511	3	32	..	..	..	2,70,511	7,17,305	1	58	36,71,146
1831-32*	21,69,913	3	26	..	..	..	..	6,39,402	1	52					2,67,441	..	36	..	..	..	2,67,441	6,89,115	..	03	37,65,871
1832-33†	14,22,058	3	50	6,53,716	3	95	20,75,774	5,37,340	..	65	1,20,149	1	06	6,57,489	2,20,769	3	97	19,825	3	90	2,40,594	6,50,038	1	91	36,23,895
1833-34†	16,89,665	..	52	7,23,686	3	91	24,13,351	4,20,628	3	85	1,91,777	1	34	6,12,405	2,11,634	2	17	26,483	2	50	2,38,117	6,67,451			39,31,324
Average p.annum,	12,37,857			10,32,377			22,50,674	2,89,914			2,35,592			5,38,495	1,85,163			56,181			2,45,028	5,33,724			36,67,922
do. p. sq. mile, ..	Rs. 127.9			Rs. 105.8			Rs. 230.7	Rs. 29.7			Rs. 24.1			Rs. 55.2	Rs. 18.9			Rs. 5.7			Rs. 25.1	Rs. 55.7			Rs. 365.7

* NOTE.—The whole of the Revenues were collected and brought to account under one head, in these years.

† The greater amount of revenue shown under the head of the Northern Konkun on the one hand, and the decrease of the revenue of the Southern on the other, arises out of the annexation of some of the latter territories to the former. The aggregate of both is pretty nearly the same.

No. IV.

The Kushelee Grant, dated A. D. 1191, *June* 20*th.*

No. 1, *on three Copper-plates.*

स्वस्तिश्रीः॥ जयत्याविष्कृतं विष्णोर्वाराहं क्षोभितार्णवं दक्षिणोन्नतदं-
ष्ट्राग्रविश्रांतभुवनं वपुः॥ आसीद्विद्याधरः पूर्वं नाम्ना जीमूतवाहनः॥
परार्थं जीवितं येन गरुडाय निवेदितं॥ शिलाहाराख्यवंशोयं तग-
रेश्वरभूभृतां॥ तद्वंशे जतिगो राजाजनि भूभृच्छिखामणिः॥ स्वस्तिश्री
जतिगक्षितीशतनयो नायिम्मनामा नृपः पुत्रस्तस्य च चन्द्रराट् पृथुय
शास्तस्यापि सूनुः किल॥ संजातो जतिगो जगज्जननुत[तः]
श्रीमांश्च तन्नंदनः गोकल्लो भुवि भूमिपालतिलकस्तस्याप्यभूदादितः॥
गूवलेशोथ तद्भ्राता कीर्तिराजोनुजोस्य च॥ चंद्रादित्य इतिख्यातश्चक्रे
राज्यमकंटकं॥ श्रीमद्गोकलभूमिपालतनय[यः]श्रीमारसिंहो नृपः
तत्सूनुर्नृपमौलिलालितपद[दः] श्रीगूवलाख्यो नृपः॥ तद्भ्राता भुवि
भोजदेवनृपतिर्वैरीभपंचाननश्चक्रे राज्यमखंडितं पृथुयशा लंकेशतुल्यं
किल॥ तस्यानुजातो विदितप्रतापो वल्लालदेवक्षितिपस्सदैव॥ श्रीका
मिनीशोविनतावनीशो दिक्प्रांतरूढःप्रथितः[त]प्रतापः॥ तस्यानुजो
धर्मधरो धरित्र्यां दधार वर्णानखिलान् स्वधर्मे॥ धैर्याग्रधुर्योधनदो
धनानां श्रीगंडरादित्य इतिप्रसिद्धः[द्धः]। दीनानाथदरिद्रदुःखविकल-
व्याकीर्णनानाविधप्राणित्राणपरायण[णः]प्रतिदिनं गुप्ताख्यदानेन यः॥
यष्कृ[यःकृ]ष्णाजिनधेनुभूम्युभयतोमुख्यादिदानप्रदः शश्वद्ब्रह्ममतिप्र-
वीणहृदयो भूदेवकल्पद्रुमः॥ तुलापुष[रुष]दानादिषोडशक्रतुका-
रकः॥ शौचगांगेयकीर्त्यैकनिलय[यः] स्वगुणैर्भुवि॥ तन्नंदन[नः]
प्रबलमण्डलिकद्विपेन्द्रपञ्चाननोजनि जगत्रि[त्रि]तयैकवीरः॥ प्रत्यर्थि
पार्थिवललाटतटस्थपादपीठस्फुटोज्व[ज्ज्व]लयशाविजयार्कदेव[वः]॥
दानाय द्रविणार्ज्जनं जनपरित्राणाय वीरव्रतं सत्याय प्रियमाषणं
हरिपदध्यानाय चेतस्थितिः संपत्तिस्सुमनोविपद्विगतये यस्य प्रकामं
कविः कश्शक्तः प्रविविच्य तस्य विजयादित्यस्य वक्तुं गुणान्॥ येन
स्थानकमंडले तदधिपाः भ्रष्टाः पुनस्थापिताः गोवायां परिनष्टभूमि-
पतयः सुस्थापितास्तेजसा॥ यत्सख्येन च चक्रवर्त्तिपदवीं प्रापातुलो-
विज्जणस्सोभूत् श्रीविजयार्कदेवनृपतिर्वैरीभकंठीरवः॥ तन[तन्नं]
दनः सकलदिक्तटवर्तिकीर्तिर्भ्रूभंगमात्रपरिसाधितवैरिवर्ग्गः॥ विश्व-

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भरामरध्रुरीणभुजबलदेव विभ्राजते नृपवरो भुवि भोजदेवः॥ संग्रा-
मांगणभैरवः क्षितिभुजां संहारभैरीरवः कीर्त्याक्रांतजगत्त[त्र]यस्त-
मुल्लतां निधू[धूं]ततापत्रयः ॥ श्रीरत्नाप्रियनंदनः परिजनानंदैकसं-
क्रंदनः प्रामाश्रेषमहीतलस्य जयतात् श्रीभोजराजप्रभुः ॥ समधिगत-
पंचमहाशब्द[ब्द]महामंडलेश्वर । तगरपुरवराधीश्वर । जग-
ज्जनं मनोनुरागसागरप्रवर्द[र्धं]नचंद्र । श्रीशिलाहारनरेंद्र ।
विद्वज्जनमनोरथफलप्रदपारिजात जीमूतवाहनान्वयप्रसूत । विरो-
धिधराधीशवंशगहनदहनधूमध्वज । सुवर्णगरुडध्वज । रिपुमदेभ-
विदलनोत्कंठकंठीरवमंडलिकभैरव । विद्विष्टमंडलिकपन्नगवैनतेय ।
शौचगांगेयायुवतिजनमनसंमोहनाभिनवकंदर्पमह[द]नकसर्प । च
चिंतितचिंतामणि । श्रीविजयादित्यदेवनसिंग[ह] । साहसोत्तुंग ।
परिमपालराज्यलक्ष्मीसमाकर्षणमंत्रसिद्ि[द्धि] ।प्रतिवारसिद्धि । सक
लशास्त्रपारावारपारायण । रूपनारायण । सकलजगतीजनस्तुत्यर
हुवरादित्य । जयपताकापवनविघटितारातिसेनाघनमिरिदुर्ग-
लंघन । उद्ध[द्ध]तधराधीशकुलशिखरिकुलिश । कलिगल[लां]कुश ।
वीरलक्ष्मीलतालंबनप्रचंडभुजदंड । मंडलिकजवदंड । मंडलिकन-
रनारसिंग[ह] । मंडलिक वेश्या भुजंग । ब[ब]लवदरिचतुरंग-
संघट्ट । वैरिघरट्ट । परमासवारिमदनमहेश्वर । प्रतापलं-
केश्वर । मंडलिकगंडपें[पं]डार । एकांगवीर । परनायातभूश्रि-
वहरद्वयसमुद्र । परबलविजयकालाग्निरुद्र । सुगीतकृतिचातु-
र्यहर्षितश्रिवांतरंग । प्रशस्तवस्तुकविताप्रसंग । विविधधर्म निर्माण
नित्यप्रमोदश्रीमहालक्ष्मीदेवीलब्ध [ब्ध] वरप्रसादादिसमस्तराजा
वलीविराजितः श्रीमन्महामंडलेश्वरश्रीभोजदेवः पन्नालदुर्गे सुख
संकथाविनोदेन राज्यं कुर्वाणः स[श]कवर्षेषु सप्तयोदशशताधिक
सहस्रेषु गतेषु वर्तमानविरोधिकृत्संवत्सरे आषाढशुद्ध[द्ध]चतुर्थ्यां बृ-
[बृ]हस्पतिवारे दक्षिणायनसंक्रमणपर्वनिमित्तं कुमारगंडरादित्यवि
ज्ञापनेन तस्याभ्युदयार्थं षट्त्रिरेकंप्रमाणमध्यवर्तिकसे[ते]ग्रामे प्रतिदिनं
द्वादशब्राह्मणभोजनार्थं नद्रामपिंडादानद्रव्यं सर्वं तत्रत्यगोविंदभट्ट
हस्ते धारापूर्वकं सर्वनमस्यं सर्वबाधापरिहारं राजकीयानाममंगुलि
प्रेक्षणीयमाचंद्रार्कं प्रादात् । तस्य ग्रामस्य सीमा । पूर्वस्यांदिशि कुवल
नामनदी । दक्षिणस्यांदिशिसावुरिनामस्तुल्लखोलः । पश्चिमस्यांदिशि
सरित्पतिः । उत्तरस्यांदिशिकेलंडिकालूकुरुस्तुल्लखोलः । अंबेरिक

स्थितपूगीवृक्षसमूहपर्यंतं सीमा । व[ब]हुभिर्वसुधादत्ताराजभिः सगरादिभिः । यस्य यस्य यदा भूमिस्तस्य तस्य तदा फलं । मद्वंशजाः परमहीपतिर्वंशजावापापादपेतमनसो भुविभूमिपालाः॥ ये पालयंति मम धर्ममिमंसमग्रं तेभ्यो मयाविरचितोंञ्जलिरेषमूर्ध्नि:[र्ध्नि]॥ स्वदत्तां परदत्तां वा यो हरेत वसुन्धरां ॥ षष्ठि[ष्टि]र्वर्षसहस्राणि विष्ठायां जायते कृमिः । षष्ठि[ष्टि]र्वर्षसहस्राणि स्वर्गे तिष्ठतिभूमिदः । आछेत्ता चानुमंताच तान्येव नरकेवसेत् । अतिदानं तु सर्वेषां भूमिदानमिहो च्यते। अचलाह्यक्षयाभूमिःसर्वान् कामान् प्रयच्छति । सुवर्णरजतंतांम्रं [ताम्रं]मणिमुक्ताफलानि च॥ सर्वमेतन्महाप्राज्ञददाति वसुधां ददत्॥ भर्तुर्निश्रेयसेयुक्ता[क्ताः] संग्रामेभिमुखो[खा]हताः॥ तां गतिं नाप्नुवं तीह भूमिदा यदवाप्नुयुः॥ सामान्योयं धर्मसेतुर्नृपाणां कालेकाले पालनीयोभवद्भिः ॥ सर्वानेतान्भाविनः पार्थिवेंद्रान्भूयोभूयो याचते रामचंद्रः ॥ उत्कटितं विप्रवामियणेन मंगलमहाश्रीः ॥

The Terwatuk or Terwun Grant, dated 20th Dec. A. D. 1260.

No. 2, also on three Copper-plates.

N. B.—The letters within brackets are the true readings, as corrected by a learned native Bapoo Shastree of Rutnagiri. The actual readings of the Copper-plates are given as transcribed by him.

स्वस्तिश्रीशकु[क]११८२ वर्षेरौद्रसंवत्सरे । पुष्य[पौष]वदिसप्तमि[मी] शनिदिने । अद्येह समधिगतपंचमहाशब्द । महामंडलेश्वर । कल्याण पुरवराधीश्वर । कलियुगकर्णान्वयप्रसूत । चालुक्यकुलकमलकलिका विकासभास्कर । सुवर्णवराहलांछनध्वजसत्यरत्नाकर । शरणागत वज्रपंजर । महामाहेश्वर । महेश्वरदेवचरणप्रसादनाराधनोपचारा दवाप्तपरमराज्येश्वर । श्रीकेदारदेवपदपंकजभ्रमर । रायधरणीवराह राय । वटकाररिपुराय साहसमल्लश्रीकांवदेवराय विजयराज्योदै । तद्राज्यभारचालनसमर्थ । आचारनिपुण । सारासारविचारचतुर । सकलकलाकुशल । महामात्यमंत्रचूडामणि । श्रीकेशवमहाजनिना । श्रीक्रांवदेवरायप्रसादलब्द[ब्ध] । तेरवाटकनामधेयोय[यं]ग्रामः । उत्तरायणसंक्रांतिपर्वणि । परमयाभक्त्या । महाधामि[र्मि]केण भूत्वा

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सन्नि[ृ]क्षमाल।कुलसोपरिकर।दंडदोषमार्गणसहितचतुःसीमापयतं निधिनिक्षेपसहितः विंशतिविप्रसहितकेशवप्रभवे। हस्तोदकेन प्रद त्तः। तदर्थशासनं प्रयच्छति। तेषामेतानि नामानि। झाटसीवार संबंधिनीशूद्रप्रजोपजीविनीसमग्राभ्र[भू]मिवि[र्विमलेश्वरदेवस्य। तथा देवस्य संनि[सन्नि]धौ याभूमि[मिः]। सा। भारद्वाजगोत्रस्य। माधव देवस्य। गंधधूपनिवेद्यार्थ[र्थं]। भार्गवगोत्रनागदेक्रमै[वक्रमे]त। का श्यपगोत्रविठ[ठ्ठ]लघैशास। भार्गवगोत्रविठ[ठ्ठ]लघैशास। भारद्वाज गोत्रउकलघैशास। ब्रह्मत्वसहित। गार्ग्यगोत्रगोइं[विं]दभट[ट्ट]। अत्रिगोत्रसोमदेभट[वभट्ट]। वासिष्ठगोत्रसोमदेक्र [वक्र]मेत। वा सिष्ठगोत्रकेशवभट[ट्ट]। काश्यपगोत्रमाधवभट[ट्ट]। मुदुग[द्ग]ल गोत्र। वासुदेवभट[ट्ट]। वासिष्ठगोत्रपदुमणभट[ट्ट]। गार्ग्यगोत्र माधवभट [ट्ट] अत्रिगोत्रअच्युतभट[ट्ट]। काश्यपगोत्रवाम- नभट[ट्ट]। भारद्वाजगोत्रनारणभट [रायण भट्ट] भारद्वाज गोत्रनारण [रायण] ठाकुरस्यचौधिरिक [रचौधिरिकः॥] सा [सः] ग्रामप्रतिपालकः। भारद्वाजगोत्रहरिदेवभट[ट्ट]। भार्गवगोत्र तिकलभट[ट्ट]। एवमेतानि नामानि। देवसंनिधौ। तांब्र[ताम्र]भा जनपूर्वक। शाश्वतमठं। धर्मकार्यार्थकझाटकवाटिका। चत्वारि अंक संख्या जाल्हणराउलसुतगोइराउलस्य दातव्यं ग्रामोयमा[म]त्रान्वय [ये]संभूतराज्ञा अपरेणवा धार्मिकेण भूत्वा पालनीय[यं]। यथा दान श्रेयभा[सा]कुपालकोपिभविष्यति। व्व[ब]हुभिर्वसुधा दत्ता राजभिः सगरादिभिः। यस्य यस्य यदा भूमिस्तस्य तस्य तदा फलं॥ स्वदत्तां परदत्तां वा योहरेत्य[त] वसुंधरां॥ षष्ठि[ष्टि]र्वर्षसहस्राणिविष्ठायां जायतेक्रि[कृ]मिः। क्रि[कृ]मियोनि[निं]ततो गत्वा चांडालव्वे[लेव्व]भि जायते॥ हिरण्यमेकं गामेकं भूम्यामप्येकमंगुलं॥ हरंन[रन्न]रकमा यां[या]तियावदाहु[भूतसं]प्लवं॥ नविषं विषमित्राहुर्ब्र[ब्र]ह्मस्वंविष मुच्यते॥ विषमेकाकिनो[नं]हंति ब्रह्मस्वं पुत्रपौत्रिकं॥ मद्वंशजातः परवंशजातः[जाः परमहीपतिवंशजावा] पापादपेतमनसोभुविभार भूताः[भूमिपालाः]॥ येपालयंति ममधर्ममिदं[मं]हि सर्वे तेभ्योमया विरचितोज्जलिमूर्ध्निरेपा[तोंजलिरेषमूर्ध्नि]॥ श्रीगोविंदेन विलिखात [खितं]। श्रीमंगलमाहेश्री[माहेश्वरी] ९८५

No. 1.

A Translation of an ancient grant in the Sunskrit language, inscribed on three copper-plates, dated Shalivahan Shuk 1113, *or June* 20*th, A. D.* 1191, *being at this present date,* 1840, *six hundred and forty-nine years old: from Bhoja Devu Rajah of Tuguru to Govinda Bhut, assigning to him the entire land rental, or revenues of Kushelee village in the district of Attaveerakun to feed twelve Brahmins.*

Glory be to Vishnoo in the form of Varaha the Boar who agitated the waters of the ocean, and on whose up-lifted right tusk, the earth found its repose.

There was formerly a Viddyadhun, (a kind of demi-god) by name Jeemootavahanu, who offered his life for other's sake, to Gurooda, king of birds, (i. e. to save a serpent whom Garooda has destroyed.) In his race is the origin of the family of Sheelahar, the kings of Tuguru. In this Sheelahar family was born king Jatiga; he gave birth to king Nayyumna; from him sprung king Chundrarat; from him Jatiga the 2nd. He begat Gonkulla; from Gonkulla were born the king Goovull, Keerteeraja, Chundraditya and Mana sinha; Mana sinha gave birth to Goovulla the 2nd, and Bhoj, Dheva Bullala Deva and Gundaraditya; Gundaraditya begat Veejayarka, from whom sprung Bhoja Deva the 2nd, famous for many excellent qualities, and favored by Maha Lukshmee the goddess of riches. Whilst Bhoj Deva reigned in the Fort of Pudma Nulla (perhaps Punnalla) he at the request of his son Gundaraditya 2nd, on the 4th of Ashadha Shooddh, the bright half of the month of Ashadha, Thursday, in the year named Veerodhukrut of the æra of Shalivahan 1113 (20th June, A. D. 1191) at the meritorious hour when the sun directed his course towards the south, gave in gift, for the purpose of feeding 12 Brahmins daily in the village Kushelee in (the district of) Attaveerakun, the whole of the revenue of that village, unto Govinda Bhut of the same village, *after pouring water on his hands,* a gift universally respected and freed from the least claim of the reigning family. The boundaries of this village are: on the east, the river Coorul; on the south a dry current called Savoree: on the west, the S. ocean, and on the north the dry current called Kakhund, limiting the number of betel-nut trees of Umvarika.

From the great king Suggur downward many have gifted people with lands, and the givers to whom they belonged, obtained the merit thereof. To those monarchs of my race, whose minds shun the commission of sin and who will keep this my donation inviolate, I do join my hands on my head (meaning I do make my numuskar or obeisance.)

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* Whoever resumes, land whether given by himself or by others, he in after life becomes a worm, and is reduced to a most painful lot, becoming as it were excrement for the period of sixty thousand years.

Those who give gifts of land enjoy Swurgu (the region of bliss) for the period of sixty thousand years, and those that resume them or those that give advice to that effect, remain in hell for the same number of years. Among all gifts the greatest is a gift of land; land is permanent, it fulfils the expectations of the donor. The giver of land gives as it were gold, silver, copper, gems and pearls. Those that devote themselves to their master's cause, those that die in battle face to face, do not attain to that bliss in after life, which the giver of land attains. The great Rama thus addressed kings (when) he gave land: O ye kings! that shall come after me, I entreat of you, again and again, to keep from time to time this common duty of those that govern from violation, namely, the duty of continuing the possession of land to those to whom it was made over as a gift. *Engraved by Vameeyana Brahmin.* May it prosper.

No. 2.

A Translation of an ancient grant in the Sunskrit language inscribed on three copper-plates, dated Shalivahan Shuk 1182. *Poush Vudya (A. D.* 1260, *Saturday, 20th December,) in the year of the Cycle named Roudra, being at this present time,* 1840, *five hundred and eighty years old.*

On Poush Vudya 7th (Saturday) in the æra of Shalivahan Roudra, the name of the year at the time when the sun entered his course

* The Hindu imprecation and denunciation, may appear strong to those who have not examined the spirit of such documents issued in the time of our Saxon and Norman forefathers. The words of the laws of the XII. Tables, and Magna Charta, and Charlemagne are pretty much to the same effect, but more delicate as to the language. "These things we offer to God, from whom if any take them away (i. e. the land, &c.) which we hope no man will attempt to do, but if any shall, let his account be without favour in the last day, when he cometh to receive the doom which is due for sacrilege against that Lord and God unto whom we dedicate the same.—Leg. XII. Tab. Cap. II. Carol l. VI. c. 285; Mag. Chart c. 1.

"Others also, who having wastefully eaten out their own patrimony would be glad to repair, if they might, their decayed estates with the ruin they care not of what nor of whom, so the spoil was theirs: whereof in some part if they happen to speed, yet commonly they are born under that constellation which maketh them, I know not how, as unapt to enrich themselves, as they are ready to impoverish others: it is their lot to sustain during life both the misery of beggars

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towards the north, this day Keshow Mahajun, the chief Muntree (minister) of the great king Coombadeva, the Lord of Cullianpoor, and who is born in the race of Jeemootavahana, gave in gift to the extent of its four boundaries the village Tayravutta unto Keshow Prabhuvu, at the head of 20 Brahmins, together with all the trees and its other appurtenances, with the authority of judging and punishing its inhabitants, and with all the treasure and deposits that may be hidden in it. The names of the Brahmins are, 1st, Keshow Prubhuvu: 2nd, Madhow Dewa of the race of Bharudwaja, to him is given all the land relating to Jhataseevara, on which Soodras subject to this village earn their livelihood; this together with the land in the vicinity of Veemalashwur Muhadeva are gifted to defray the expenses of the Pagoda: 3rd, Nagdawa Kramate of the race of Bhargava: 4th, Withul Ghaishasha of the race of Kashyuppa: 5th, Withul Ghaishasha of the race of Bhargava: 6th, Ookulla Ghaishasha of the race of Bharudwaja: 7th, Govinda Bhut of the race of Gargeja: 8th, Soma Dewa Bhut of the race of Utree: 9th, Soma Deva Krumate, of the race of Vasishta: 10th, Keshow Bhut of the race of Vasishta: 11th, Madhow Bhut of the race of Kashyuppa: 12th, Wasoodewa Bhut of the race of Moodgul: 13th, Pudmon Bhut of the race of Vasishta: 14th, Madhow Bhut of the race of Gaurgya: 15th, Utchyoota Bhut of the race of Utree: 16th, Vamun Bhut of the race of Kashyuppa: 17th, Narayun Bhut of the race of Bharudwaja: 18th, Narayun Thakoor Chowdree (he is to take care of the village) of the race of Bharudwaja: 19th, Hurreedeva Bhut of the race of Bharudwaja: 20th, Teekulla Bhut of the race of Bhargava.

A permanent house in the vicinity of Dewa (Veemulashwur Muhadeo) and the orchard named Zaticka Vateeku measuring four *unks* (a land measure) are also given in danu to Go-ool Raool, the son of Jalhunna Raool, presenting him with a gift, a deed engraved on copper-plates.

May the kings of the race of Koombadeva or those of other race protect (the gift of) the village; may they, from the merit of this gift, be qualified to govern the whole earth.

From the great King Suggur downwards many, &c. &c.—(see the last three paragraphs of the preceding inscription, which exactly correspond with the concluding passages in this inscription.)

and the infamy of robbers. But though no other plague and revenge should follow sacrilegious violation of holy things, the natural secret, disgrace and ignominy, the very turpitude of such actions in the eye of a wise understanding heart is itself a heavy punishment." Hooker's Eccl. Polity, book 5. vol. 2. p. 462.

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II.—*Tables of Population, North Konkun.*—Communicated by Major T. B. Jervis.

CENSUS in 1819-20 *and* 1820-21.

Talookas.	Mehals.	Houses.	Cattle Halts.	Bungaloes.	Total Houses.	Inhabitants.	Men.	Women.	Children.	Cattle.	Bullocks.	He-Buffaloes.	She-Buffaloes.	Cows.	Calves.	Horses.	Goats and Sheep.
Panwall	P. Bellapoor	3,451	1,167	0	4,618	15,236	5,283	5,725	4,228	10,941	2,876	2,108	1,079	2,224	2,654	33	181
	T. Wazzay..... ..	4,231	1,158	0	5,389	22,096	6,597	7,977	7,522	15,227	3,505	2,550	1,648	2,936	4,588	112	1,402
	T. Anwoorvulleet	1,290	147	0	1,437	5,746	1,879	2,087	1,780	4,867	715	685	505	853	2,109	5	241
	T. Tullozay	1,514	576	0	2,090	7,770	2,357	2,864	2,549	7,359	1,411	1,153	828	1,456	2,502	22	664
		10,486	3,048	0	13,534	50,848	16,116	18,653	16,079	38,385	8,507	6,496	4,060	7,469	11,853	172	2,488
Mahim	P. Mahim, ...	2,678	450	0	3,128	13,330	4,164	4,861	4,305	8,670	2,124	1,328	815	1,791	2,612	20	271
	T. Angassee, ...	2,286	180	35	2,501	12,085	4,221	4,760	3,104	3,183	1,943	355	442	275	168	11	0
	Hawayleesoywun,	1,611	173	0	1,784	6,838	1,354	2,458	3,026	4,525	1,263	1,026	534	1,327	375	11	0
	P. Munnor,.....	1,570	160	0	1,730	9,262	2,310	2,460	4,492	6,685	1,337	734	596	1,535	2,483	13	256
	Pawoolbaray, ...	869	30	0	899	3,671	1,538	1,388	745	3,328	800	514	457	719	838	19	0
	P. Koje, ...	808	55	0	863	8,073	1,588	1,724	4,761	4,283	809	476	686	793	1,519	43	0
	Suja Seergaon, ...	710	119	0	829	3,911	1,195	1,355	1,361	2,779	939	141	243	663	793	2	138
		10,532	1,167	35	11,734	57,170	16,370	19,006	21,794	33,453	9,215	4,574	3,773	7,103	8,788	119	665

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Census, continued.

Talookas.	Mehals.	Houses.	Cattle Halts.	Bungaloes.	Total Houses.	Inhabitants.	Men.	Women.	Children.	Cattle.	Bullocks.	He-Buffaloes.	She-Buffaloes.	Cows.	Calves.	Horses.	Goats and Sheep.
Bassein	T. Sonallay.....	1,943	257	0	2,200	8,425	3,255	3,219	1,951	6,892	1,625	1,107	778	1,402	1,960	30	222
	Augur Wussye ...	2,213	723	64	2,400	10,664	3,742	4,265	2,657	1,938	741	618	207	372	0	16	0
	T. Cammon.....	1,464	192	5	1,661	5,280	972	2,249	2,059	3,679	1,140	843	593	1,103	0	9	0
	T. Autgaon	1,039	204	1	1,324	4,639	1,590	1,684	1,365	2,501	836	551	205	421	488	5	21
	T. Doogand	645	44	0	689	2,854	991	998	865	3,298	605	762	408	536	987	13	236
	T. Munickpoora...	239	32	0	271	1,428	367	456	605	401	14	336	32	19	0	0	0
	K. Bhewndy	1,015	88	33	1,136	5,304	2,378	2,094	852	1,398	651	15	317	415	0	29	215
		8,558	1,020	103	9,681	38,594	13,295	14,965	10,334	20,107	5,612	4,232	2,560	4,268	3,435	102	694
Moorlaur	P. Gorut	1,828	230	210	2,268	9,794	3,079	3,551	3,164	10,391	2,689	1,219	747	2,404	3,332	166	1,044
	T. Chone	1,478	129	0	1,607	5,868	2,125	2,245	1,498	6,237	1,513	717	676	1,437	1,894	42	576
	Umbernath.....	694	227	11	932	3,709	1,400	1,407	902	4,156	1,007	571	393	1,123	1,062	6	0
	T. Moorbaur	936	94	34	1,064	5,124	1,564	1,748	1,812	5,447	1,370	342	345	1,416	1,974	39	262
	T. Bharay	959	92	37	1,088	4,760	1,586	1,716	1,458	5,455	1,090	642	619	1,107	1,997	20	441
	T. Khadool.....	831	109	0	940	4,383	1,493	1,434	1,456	4,614	1,519	341	273	1,707	774	26	178
	K. Cullian	1,289	151	0	1,440	5,342	2,401	1,718	1,223	934	169	73	283	267	142	32	149
		8,015	1,032	294	9,339	38,980	13,648	13,819	11,513	37,234	9,357	3,905	3,336	9,461	4,175	331	2,650

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Sunjan	P. Sunjan	3,436	559	0	3,995	15,987	5,431	5,596	4,960	13,867	4,773	540	650	4,326	3,578	17	1,265
	Havaly Turrapoor	1,890	0	0	1,890	9,269	2,792	2,874	3,603	4,200	1,107	925	350	1,243	575	10	225
	T. Chinchin	2,008	0	0	2,008	8,127	2,950	2,979	2,198	3,575	975	850	345	1,205	200	9	85
	P. Nhair.....	1,421	147	0	1,568	6,662	2,192	2,213	2,257	5,884	1,688	2,110	346	204	1,536	9	754
	P. Dannoo	789	0	0	789	4,171	1,376	1,470	1,325	935	175	50	55	405	250	0	25
	P. Baurey	528	53	0	581	2,127	883	802	442	1,933	339	81	75	843	595	0	87
	P. Aussain	707	0	0	707	2,777	1,693	1,076	648	1,875	405	185	180	1,053	52	0	25
	P. Woodway	261	45	0	306	993	419	380	194	986	208	53	52	390	283	0	61
	Dhurumpoor	135	22	0	157	649	202	217	230	914	220	86	47	255	306	0	91
	Gumburgheer.....	897	714	0	1,011	3,910	1,365	1,370	1,175	3,177	841	176	116	1,117	927	0	216
	Banlapoor	59	0	0	59	238	88	84	66	166	50	11	8	69	28	0	6
		12,131	940	0	13,071	54,910	18,791	19,021	17,698	37,512	10,781	5,067	2,224	11,110	8,330	45	2,850
Nusra-poor	P. Nusrapoor.....	2,567	235	0	2,802	10,729	3,788	3,974	2,967	9,597	2,475	1,214	781	2,508	2,619	49	466
	T. Warrady	1,585	122	0	1,707	7,133	2,311	2,581	2,241	7,024	1,712	795	668	1,776	2,073	35	455
	T. Borratty	978	143	0	1,121	4,205	1,561	1,761	883	3,722	856	592	359	872	1,043	20	56
	T. Wunkhull.....	964	156	0	1,120	4,434	1,440	1,628	1,366	5,337	817	512	420	1,032	2,486	16	477
	T. Toongarton ...	455	59	0	514	2,105	744	808	553	2,592	441	306	214	562	1,069	0	281
	T. Wassray	611	66	0	677	2,208	953	542	713	2,213	580	336	197	520	580	10	195
	Barapada	220	61	0	281	1,086	348	337	401	1,207	198	143	121	190	555	0	105
		7,380	842	0	8,222	31,900	11,145	11,631	9,124	31,692	7,079	3,898	2,830	7,460	10,425	130	2,035

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Census, continued.

Talookas.	Mehals.	Houses.	Cattle Halts.	Bungaloes.	Total houses.	Inhabitants.	Men.	Women.	Children.	Cattle.	Bullocks.	He-Buffaloes.	She-Buffaloes.	Cows.	Calves.	Horses.	Goats & Sheep.
Sakoorley	Korkurra	1,503	121	145	1,769	6,179	2,597	2,593	989	7,305	2,188	726	505	1,915	1,971	49	422
	Wassoondri	569	27	3	599	2,422	887	885	650	3,097	547	472	394	622	1,062	9	230
	T. Rahoor	809	57	0	866	3,597	1,201	1,315	1,081	3,516	861	548	488	699	920	10	185
	T. Shayray.....	732	52	39	823	3,665	1,176	1,347	1,142	4,021	1,224	398	385	1,018	996	21	160
	P. Sukoorly	1,429	84	0	1,513	7,093	2,209	2,277	2,607	7,797	1,497	415	422	2,296	3,167	43	182
	T. Aughoy	1,168	68	59	1,295	5,545	1,999	1,790	1,756	6,135	1,245	652	442	1,230	2,566	45	169
	T. Coonday	399	21	2	422	1,720	555	627	538	1,789	334	289	277	291	598	6	210
	Khambalay.....	370	19	6	395	1,529	519	564	446	1,634	277	239	227	310	581	7	255
	Alliany	305	21	23	349	1,453	462	508	483	1,593	459	98	82	512	442	8	116
	Juddaserossee ...	434	29	0	463	2,311	753	720	838	2,352	598	142	136	652	824	7	130
	T. Waday	470	15	0	485	1,903	623	638	642	1,764	331	216	218	328	671	27	0
	Woysackray	426	52	0	478	1,609	738	767	104	3,708	939	194	114	1,148	1,313	10	51
	Konayputt	435	9	0	444	1,859	579	656	624	1,749	294	256	199	370	630	14	0
	Khurdi	449	9	8	466	1,559	443	618	498	1,517	372	122	127	452	442	9	67
		9,498	584	285	10,367	42,444	14,741	15,305	12,398	47,677	11,166	4,767	4,016	11,845	16,183	305	2,177
Kolwan	P. Wassaylay.....	760	0	0	760	2,625	1,040	1,025	560	2,716	705	90	114	998	809	0	51
	Gargaon	310	16	0	326	1,321	453	429	439	1,178	334	122	115	334	273	2	21
	Tullasri	266	24	0	290	1,393	451	473	469	672	214	0	1	280	177	0	22
	Khodala	226	23	0	249	1,144	356	338	450	1,642	298	65	66	450	763	3	50
		1,562	63	0	1,625	6,483	2,300	2,265	1,918	6,208	1,551	277	296	2,062	2,022	5	144

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ABSTRACT.

Talookas.	Houses.	Cattle Halts.	Bungaloes.	Total houses.	Inhabitants.	Men.	Women.	Children.	Cattle.	Bullocks.	He-Buffaloes.	She-Buffaloes.	Cows.	Calves.	Horses.	Goats and Sheep.
Panwall ...	10,486	3,048	0	13,534	50,848	16,116	18,653	16,079	38,385	8,507	6,496	4,060	7,469	11,853	172	2,488
Mahim ...	10,532	1,167	35	11,734	57,170	16,370	19,006	21,794	33,453	9,215	4,574	3,773	7,103	8,788	119	665
Bassein ...	8,558	1,020	103	9,681	38,594	13,295	14,965	10,334	20,107	5,612	4,232	2,560	4,268	3,435	102	694
Moorbaur	8,015	1,032	294	9,339	38,980	13,648	13,819	11,513	37,234	9,357	3,905	3,336	9,461	11,175	331	2,650
Sunjan.....	12,131	940	0	13,079	54,910	18,791	19,021	17,698	37,512	10,781	5,067	2,224	11,110	8,330	45	2,850
Musrapoor	7,380	842	0	8,222	31,900	11,145	11,631	9,124	31,692	7,079	3,898	2,830	7,460	10,425	130	2,035
Sakoorley	9,498	584	285	10,367	42,444	14,741	15,305	12,398	47,977	11,166	4,767	4,016	11,845	16,183	305	2,177
Kolwan ...	1,562	63	0	1,625	6,483	2,300	2,265	1,918	6,208	1,551	277	296	2,062	2,022	5	144
Gr. Total,	68,162	8,696	717	77,573	3,21,329	1,06,406	1,14,665	1,00,258	2,52,568	63,268	33,216	23,095	60,778	72,211	1,209	13,703

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PROCEEDINGS

OF THE

BOMBAY GEOGRAPHICAL SOCIETY.

AUGUST, 1840.

I.—*Extract from the late Colonel Lambton's Notices of Malabar.*—Communicated by Major T. B. Jervis.

The Coimbetoor province is an extensive district extending from the bounds of Trichinopoly as far west as south Malabar, and is bounded by the Cavery on the east and north as far as Sattiagul above the ghats, and on the west or NW. by the Mysoor country taking in the Guzulatty Pass. On the south it is skirted by the Pyluy and Annamalli mountains, and the district of Dindigul.

The face of the country is an even surface, but undulated; and being generally enclosed with thorn fences, it has a beautiful appearance when the fences are green, and the crops on the ground. The soil is light and dry, and the surface covered every where with small stones, but it produces all kinds of dry grain, with some rice on the banks of the rivers. It likewise produces cotton, hemp, tobacco, &c. There is also extensive pasturage for cattle and sheep, and the latter are in great numbers, and remarkable for their delicacy.

The general elevation of the lower part of Coimbetoor, or the part below the ghats, is from nine hundred to a thousand feet above the sea, and this flat is surrounded by very high mountains, viz. by the great chain of mountains on the south which extend from Dindigul valley and terminate within twenty-four miles of the Malabar coast, by the Neelgherry hills on the west and by the range of ghats on the north. The Anga mountains, and the Annamalli mountains form a gap of about twenty miles in breadth, through which the wind rushes like a blast through a funnel during

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the time of the western monsoon, which commences in May, and continues till October. The wind, which is always from the west, in those months is checked by the lofty mountains that run parallel to the Malabar coast, and being confined to this narrow opening, it enters with prodigious violence, which is considerably augmented by the heat of the atmosphere to the eastward, while the cold weather prevails to the westward of these mountains. This occasions a gale of wind, which carries clouds of sand entirely across the Coimbetoor district, where the mountains again converge, and cause another violent current that sweeps the plains of Trichinopoly and extends to the eastward of Tanjore.

In the neighbourhood of Daraporam the surface is leveled with the drifted sand, and tradition says that whole villages in the Coimbetoor, have been buried by these continued hurricanes: indeed there are many vestiges that give credibility to the story. In the neighbourhood of Daraporam, several vaults have been discovered by digging a few feet below the surface of the ground, which have the appearance of ancient sepulchres, and have in all probability been originally above ground, for they have partitions, and openings like doors, but all on a very small scale.

These vaults contain urns and various earthen vessels which in shape and quality have no resemblance to any of the present day. Some of them appear to have been filled with the ashes of the dead, others with metallic substances, having the rude shape of swords and other weapons, transfigured by calcination or by time. These curious facts may lead us to a very reasonable conjecture, that a different race of people from the present, has once inhabited these countries.

In some of these places various coins have been found, some with Persian characters, others with characters not now understood, and what is most remarkable, several Roman coins have been discovered in various parts of the Coimbetoor; I saw two at Daraporam, one of gold and the other of silver, both of the reign of Augustus Cæsar; and Mr. Garrow, I am informed, has collected a number of them. It remains with those who have time and inclination to explore the antiquities of the east, to discover, or at least to form a probable conjecture, how Roman coins have been brought to this part of India.

The great defect in historical documents renders it difficult, and always doubtful, in referring back to remote periods; and there does not appear to be any authentic retrospect beyond 280 years, when

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the Coimbetoor country formed a part of the dominions under the Madura Dynasty. It appears that the princes of that line encouraged the arts of peace, but that indolence and luxury were the consequences; and the latter kings becoming feeble, the country became weakened by the troublesome Polygars who rendered themselves in a great measure independent of the government; and this disunion finally prepared the way for a foreign conquest by the Mysoorians. From records in possession of some of the inhabitants it appears that after the dissolution of the kingly dominion, the police established by the Polygars was of a military nature, which better enabled them to unite against an invading power, but the inefficiency incident to all combinations of little chieftains, as well as little republics, must render them an easy prey to a great military power actuated by one head.

Previous to Hyder Ally's invasion, the force north of the Noyel river was between ten and fifty thousand men, called Candachar peons; a number of forts were erected in the district, and every fort was entrusted to a man of character, whose establishment consisted of about 1,150 men of different ranks. They were rewarded with lands which they cultivated and held under a kind of military tenure similar to the tenures during the feudal system in Europe. A part of this force remained constantly as a garrison in each fort, and the rest was stationed in different parts of the district to maintain tranquillity and peace. In this division of the Coimbetoor, there were originally about ten or twelve forts, but in latter times they amounted to *thirty-six*, which evinces the great increase of military tenures, where every man of a certain rank considered *his* fort as his castle, and the citadel to his domain. Under such a system it is easy to conceive the feeble resistance that would be made against an invading army, where every petty chieftain would think only for himself, where all his peons and adherents would assemble within his fort, and where no disposable moving force was in being to repel a foreign attack. In this miserable and disjointed state was the northern part of Coimbetoor, when Hyder invaded the country, after the battle of Sattimungalum. Tippo evacuated the whole of these forts, and disbanded the peons and their officers.

After the peace with the English in 1791, Tippo had made no provision for an established police; and the country below the ghats was entirely neglected, which gave rise to extreme excesses of despotism among the revenue servants. This calamity pervades almost every Mussulman Government, and oppression once begun

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is practised by every individual to his next inferior, till at length it reaches the lowest order of the subjects, who languish under all the accumulated evils of public and private despotism. Under such a state of things, a revolt is not to be wondered at, and this unfortunate situation of the country, gave an opportunity for the Gouers to set themselves up against the Sirkar, and commit depredations in every part of the country. The notorious Tomba Gouer was one of these leaders, many of whose adherents as well as adversaries are now in existence.

Various crimes and disorders arose out of this disorganization; and two remarkable castes, the Coravars and the Valiars, became distinguished for *gang-robberies* and *house-breaking*, which crimes till of late years have been very prevalent. These two castes were very numerous, and scarcely any of the first turned their hands to industry. The caste of Coravars contained within the two divisions of Coimbetoor, about 2,400 souls, and not above 50 persons cultivated the land on their own account; some of them were labourers during the plowing, sowing, and reaping seasons, but after that, they returned to their profession of thieving and plundering. They had a jargon unknown to any other caste. They underwent hardships when young that they might withhold their confessions under the severest tortures. This kind of education is now nearly abolished, but the universal propensity for thieving prevails among the most respectable of them.

The Valiars were in number about 5,000, a great many of these applied themselves to habits of industry; near 700 paid rent to the Sirkar, and a considerable number were labourers in the pay of other ryots. A number of them have also been Cavelgars, on the same terms as the Coravars, and though dissimilar in castes and customs yet they never fail to unite their strength in their plundering or thieving exertions.

When a Coravar or Valiar became a Cavelgar to a village, it was from that instant free from the depredation of either caste, though they had previously plundered it to get themselves nominated.

Poisoning cattle is at this day a very common crime among the parias and chucklars. To the chucklars all dead cattle are a perquisite, and in return they supply the inhabitants with sandals, leather bags, &c.

Highway robberies and deliberate murders have not been very frequent, and petty thefts, though common, appear to have been more the result of necessity than of habitual vice.

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Besides the Cavery, which forms the northern and eastern boundary of Coimbetoor, there are the Bhavany river, the Noyel, the Ambravatty and the Paniany rivers. The Bhavany river has its source among the mountains to the N. W. of Coimbetoor, and after a winding course through the most fertile part of the district, it falls into the Cavery at Bhavany. The Noyel rises in the mountains west of Coimbetoor, takes an easterly direction past Payroor and Tirupoor, and falls into the Cavery about two miles and a half below Codamoody pagoda.

The Ambravatty has its source in the great range of mountains north of Dhullee, runs in a direction nearly N. E., and after receiving another small river which rises near Pyney, passes Daraporam, and after winding to the east and north, takes a course nearly east, passes Chini Daraporam, and Caroor, and falls into the Cavery about seven miles below the latter place. The Paniany river rises in the mountains south of Annamalli, passes Paulghautcherry, and after being joined by the Walla-aur runs nearly west till it disembogues into the sea at Paniany on the Malabar coast.

These rivers, except the Cavery, have but little water in the dry season, but are soon filled after the rains, and they as soon subside and become fordable; their banks are ornamented with paddy grounds, and some to a great extent. In the movements of armies these rivers and paddy grounds, together with the enclosures, would render it difficult for cavalry and artillery to act with facility, though some parts of the country are more open and admit of good positions. On the south of the Noyel river, it answers more particularly this description, that part of the district being less enclosed and less cultivated, and to the westward it is high open ground without any jungle.

The principal roads diverge from Caroor to Erode, Coimbetoor and Daraporam. The road which passes Erode, separates into two branches, the one to Bhavany, whence it leads to Sattimungalum along the north bank of the Bhavany river. The other leads direct from Erode on the south of that river, and crosses it opposite to Sattimungalum. From thence there is but one road which leads up the Guzzelatty Pass and enters the Mysoor country to the south of Ardinelly. This road is in general good, with the exception of some few places which require repairs after the monsoons.

The road to oimbetoor continues on the South of the Noyel river at some distance; passes through Kongium and Pulladam, and crosses that river about seven miles east from Coimbetoor.

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This road in general is very good or might be easily made so, the country being of a dry soil, covered with stones for the most part. For great part of the way it is ill cultivated, and badly supplied with water, an inconvenience which in the dry season must be felt by an army every where at a distance from the rivers, as wells afford the chief supply to the villages, where they have small tanks for their cattle. When I was in that country in 1806, in April and May the want of water was so great, and the country so dried up for want of rain, that the cattle and sheep were nearly perishing; and the surface of the country being covered with stones, and no verdure on the fences, the whole presented a scene of misery exceeding any thing I had ever met with. It is at that season too that the hot winds prevail previous to the commencement of the rains.

The road from Caroor to Daraporam goes nearly direct, and crosses the Ambravatty near Chini Daraporam and again opposite Daraporam.

The great road from Dindigul to Paulghautcherry passes Daraporam and is in general very good, and the country from Daraporam to Paulghautcherry is uncommonly favorable for roads.

Exclusive of their principal roads, there are other cross ones, viz. from Coimbetoor to Bhavany, to Daraporam, to Daniancottah up the Guzzelatty Pass to Paulghautcherry and Pulachy. From Bhavany there is another road leading to Sankerydroog and Salem. All these are in general good, or could be very easily rendered such.

The Pass of greatest importance is the Guzzelatty Pass, which is the great gateway between the southern provinces and the Mysoor. This was the high road during the times of Tippo and Hyder, and is equally so now under present circumstances. It is the most direct road between Tinnevelly, Madura, Dindigul and Trichinopoly below the Ghats, to Seringapatam and Bangalore, the two great military stations in the upper country. Passes in general owe their strength to the difficulty of access, or in other words to the badness of the road which leads through them, to the jungle which surrounds, and the height which commands them; a security however which we hold at the expence of convenience. But the Guzzelatty Pass has this advantage, that the better the road is, and the more the jungle is cleared away, the stronger it might be rendered by the aid of redoubts. The Fort of Guzzelatty is on the north bank of the Moyar river, but the Pass may be said to commence near the

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choultry and pagoda, about one and a half mile to the northward of the fort.

The first ascent, which is from the eastward, is indeed very steep. After ascending about a quarter of a mile, the road turns immediately to the north, in which direction it may be made to continue on the summit of a ridge the whole way to an old fort, nearly at the top of the Pass, which has been intended as a defence, and such it may be made, if the jungle be cleared away. For this ridge slopes away on each side, with a very steep descent; and these slopes may be completely defended by batteries at the very top of the Pass, where there is now a choultry, and where a line might be carried across, so as to flank both the road and the sides of the ridge. Tippo had commenced a large fort a little way to the west of the choultry, with a view I suppose, to defend that side of the Pass, but the work was left unfinished.

The fort which is near the top of the Pass has a perfect command of the ridge below it, where the road ought to be made straight that it might be raked by the guns from that fort, as far the turn to the eastward, where another fort or redoubt should be erected to defend the lower part of the Pass, where the road should also be made straight, so as to be completely enfiladed. The whole of the jungle ought to be cleared away on both sides, that nothing could approach under cover. The ridge being thus cleared the whole way up, batteries might be erected at the summit, to have a clear command of the whole ridge, and of that part of the road above the present fort, leading to the head of the Pass.

At the time I went up the Guzzelatty Pass, it was in its worst state, and then I rode on horseback the whole way, and was only twenty minutes from the bottom to the fort. At that time there were some rocky places, where the soil had been washed away by the rains, and they appeared to constitute the chief difficulties. Those places I thought might be repaired, and the whole made practicable for guns. I understand the pioneers have been since employed on it, but I am unacquainted with what they have done.

The next great Pass from the upper to the lower part of Coimbetoor is the Caverypooram Pass, which is not included in the present part of the survey. This pass is long and therefore not steep, but as it follows the course of a small river which runs into the Cavery about nine miles west of the old fort of Caverypooram, crossing it upwards of nine times, and in many places follows its bed, the road of course can only be passable in the dry season. It

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is the great thoroughfare from the southern part of the Carnatic to the S. E. part of the Mysoor country, and is much frequented by travellers.

This Pass is as remarkable for its length as from the singularity of the road. It commences near Punacatmulla, a hill about two miles west from Caverypooram, and ends about three miles to the S. E. of Caudhully, the first respectable village above the ghat, in going from the eastward; being altogether a distance of near twenty-three miles. For the accommodation of travellers, the distance from Caudhully to Caverypooram is divided by choultries into four stages. The first is from Caverypoorum to Chinnicavil choultry, about seven miles, the road generally good excepting near the choultry. The second stage is from Chinnicavil choultry to Nundacavil choultry, a distance of seven miles more, and the road crosses the river no less than six times in this space. This with the addition of some rocky places, must render the road extremely bad, and at some seasons of the year entirely impassable. The third stage is from Nundacavil choultry to Mootapelly's choultry, which is near seven and a half miles. For the first three or four miles, the road follows the bed of the river in a great measure, and crosses it three times, after which it quits the torrent, takes a N. westerly direction, and becomes very steep. In this stage, what with the rapidity of the current, and the steepness of the Pass afterwards, the most serious difficulties are to be met with, and one would scarcely think it credible that carriages of any kind would get through it; yet in 1799 Brown's detachment, with its guns, went up this Pass, on its way to Seringapatam. The last stage is to Caudhully, about seven and a half miles more, the first four of which may be considered as the Pass, the country ascending but the jungle thin and the road good.

Besides these two great Passes up what are called the eastern and S. eastern ghats, there are innumerable small ones for men and bullocks, which are little known, but which certainly ought to be explored. In carrying down my principal triangles in 1806, I left my heavy baggage at Caudhully to proceed down the Caverypooram Pass while I went round to the northward and to a station on Ponnassmalli, a very lofty mountain. The first day's march with bullocks and coolies was an ascent nearly the whole way, and I encamped at the foot of what may be called the mountain. After finishing, the guides conducted me down a Pass which led into the plain, where I fell into the road from Allambaddy to Caverypooram.

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Opposite to Sattimungalum, there are several Passes where bullocks can ascend up to the table-land above. These Tippo used to avail himself of during our operations in the Coimbetoor country in the former Mysoor wars.

There are other Passes to the westward which lead to Malabar. A small one leads from Coimbetoor over Vellemalla, which is passable for unloaded bullocks; but it is little frequented. The Manaargaud Pass is another which leads to the Malabar, from the N. W. of Coimbetoor. This was formerly much frequented, but as it tended to faciliate smuggling, it has been discouraged, and is now grown over with jungle and infested with tigers.

There must be various roads up the Neelgherry mountains, as they are inhabited on the top, and produce a revenue of about four thousand pagodas annually. No doubt they have various roads down on the Malabar side.

II.—*Descriptive and Geographical Account of the Nilgiri Hills. By Messrs. Fox and Turnbull.*—Communicated by Major T. B. Jervis.

This mass of mountains, situated between the parallels of 11° and 12° of North Latitude, and 76° and 77° of East Longitude, is bounded on the North by the table-land of Davaroypatam, a narrow tract, divided from the table-land of Mysore, by the windings of the Moyar river at the bottom of a deep narrow wooded valley; to the south and east by the open country of Coimbetoor; to the south-west a branch of the Bhavany, called the Maunar, divides it from the populated mountains of Koonda dependant on Malabar; on the west by the chain of Ghats, defined by the Murkurty peak; to the north-west by the windings of the Bakkary river, one of the sources of the Moyar, from the table-land of Wynaad—its greatest length being from east to west 36 miles, and a medium breadth of 15 miles, in figure an irregular oblong, and contains on the whole a superficial area of 469¼ square miles, of which only 14 square miles, may be said to be under cultivation. The surface is in no part even, being composed of ridges of different elevations, running parallel to each other, and forming deep vallies between; about the centre it is divided by a loftier chain, running in a north-east and and south-west direction; from it lesser ridges branch off in all directions; on this are several conspicuous eminences, as Dodabetta, Bervybetta, their elevation

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above the sea being about 8700 feet. On the west of this range, and very elevated, are a series of plain green undulating hills, denominated Mullanaad, affording extensive rich pastures, no part of it being cultivated; the broad valleys formed by these green ridges, are very extensive, their bottoms in general marshy, and the nullahs. or mountain streams, working their way through them in a variety of serpentine courses, become however confined on approaching the fall or exterior of the mountain, which to the north presents a bold face of stupendous precipices, rising in most places, almost perpendicularly from the table-land of Davaroypatam; to the east and south, they are seen to slope down in irregular woody ridges, from an elevation of about 5000 feet, in some parts presenting bold rocky precipices. Most of the narrow streams have their sources in the main chain, flow down on all sides in devious windings, and where arrested by rocks, fall in small cataracts, eventually discharging themselves into the Moyar on the north, the Bhavany on the south: the streams of these rivers unite near the village of Poongar, 3 miles from its eastern base. The surface is formed of innumerable ridges, perfectly open, covered with a short stunted grass, yet not entirely devoid of wood, being fringed with groves of forest trees; these are seen at the heads of ravines, are not unfrequent along the streams in the valleys, and a few are on the summit of the ridges to the eastward; towards the west in Mullanaad, they are very extensive, covering the whole side of the hills to one or two square miles. In the eastern portion of Porunganaad, many of the lower slopes are overrun with a low jungle, principally by a plant which bears a delicious fruit in great abundance, much esteemed by the natives, and called the *Thow-tahun*, in taste and flavor not inferior to a gooseberry. The southern hills in Maikanaad are overrun with a long grass, intermixed with fern and other wild shrubs, and the exterior slopes and deep valleys on all sides, with a variety of forest trees around the southern base. The bamboo grows in great profusion, and on the table-land of Davaroypatam, along the foot of the mountain, the teak, blackwood, and sandal appear to thrive.

It is divided into 3 Naads, viz. Porunganaad, Maikanaad, and Todáwanaad, it contains 160 hamlets or villages, independently of the temporary habitations of the Todáwars in Mullanaad, with a population of above 4000 souls. Porunganaad lying on the east, is by far the most populous; next to it is Maikanaad, occupying the south-west portion; and Todáwanaad, including Mullanaad to the west, though

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the largest division, is far inferior to the others, including the Todáwar population. The hill hamlets are in general small, composed of from 2 to 20 houses, arranged in one or two lines, sometimes forming a street: they are built of mud, and covered with thatch, low and excessively filthy, the entrance or door-way generally facing the east, and situated on the slopes of the lower ridges. These are extensively cultivated, and well attended to; some of the neighbouring ridges yearly undergo partial cultivation: the most extensive tracts are cultivated by the Buddagers. Each division has its Cotter village: this being a very low class, they are under the necessity of herding together, which gives their villages, from having a larger number of cottages, a respectable appearance, and though they are the artizans, they cultivate extensive tracts in the vicinage of their habitations. The Mullucurumbers confine themselves to the exterior slopes, and prepare their fields with the hand-hoe. The Todáwars, a migratory race, only tend large herds of buffaloes, chiefly confining themselves to the Mullanaad pastures on the west. It is a singular circumstance that no regular temples, or places of worship are to be seen here, but they have a house in some of the more extensive villages set apart for performing their ceremonies, called Davurmannay, and sometimes a small detached hut in a grove for this purpose. The Todáwars on occasions convert their dairy into a house of worship: there are three deities worshipped by the Buddagers besides Rungasamy, which however is considered to be the principal deity, and held in great veneration by all the mountaineers, the Todáwars even not excepted: he is worshipped on the peak called after him, on the eastern side of the mountain, which appears conspicuous from the plain country on the south-east. The only emblems of the deity seen on it, are a few rude stones, and iron tridents fixed in the ground, and surrounded by a low rude circular wall of loose stone, with a couple of large iron pans on it; these are on the festival of Shevaratry replenished with ghee or oil, and at night illuminated. The hill people during this festival, come from their villages on the west, and make offerings of fruit, ghee, &c.: this peak is also celebrated for a cavern on the north declivity, containing some holy earth, in request by Brahmins, and other castes: much of it is carried away to different parts by pilgrims who come here during the annual festival*.

* A further account of their customs and manners will be seen in another place.

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The hill hamlets or villages, are often seen in clusters of three or four within half a mile of each other, and sometimes nearer. In some cases they are alone in remote situations on the sides of the valleys. The scenery is in all situations beautiful, though somewhat naked, from a scarcity of trees near them: the clear purling streams meandering in every direction at the bottom of the valleys, afford a constant supply of water, of which however no advantage is taken, irrigation being in a great measure neglected in all parts. Since these regions have been visited by gentlemen, several bungalows have been built in different pleasant situations, as at Dimhutty, and here is a very good kitchen garden, as also at Jackanary in a lower situation.

A few temporary ones have been erected for the convenience of travellers, at Kodavamudy, Nunjanaad, Keeler, and Yellunhally, and another is now in some progress at Whotakay in the Mullanaad with a spacious garden laid out with taste, on the shoulder of a low ridge, which promises in time to outstrip those above-mentioned. One great disadvantage attending building here, is the want of materials. There is a variety of timber, but it appears to be of a very indifferent kind, nor is it possible to burn firm bricks; the clay being of a bad quality, does not adhere together for any time.

The soil of the hills varies materially. To the east it is of a light red, mixed with gravel; that peculiar to Mullanaad is a deep brown, sometimes inclining to black; in the morasses and woods it is perfectly so, perhaps owing to an accumulation of much putrid vegetation; in many parts about the tracts of cattle, and the different paths, are to be discerned red and yellow ochreous earth, yet is the soil not very stony: in some situations the laterite and granite is found a little below the surface. The soils on the whole are very rich, but a very small portion of the extensive slopes calculated for the plough is cultivated. European vegetables have been tried and thrive exceedingly well, as also apples, strawberries, &c.; but it is a singular circumstance, that the plantain and other fruit trees, even common vegetables of the open country, have not been found to succeed. The chief productions are corally, gunja, a species of barley, shamay, buttacudla, field peas, poppy, the seeds of greens, and wheat, also garlic, onions, mustard, vendiem or fenugrick. The marshes yield spontaneously vussumbú, or the sweet-scented flag-root; in certain situations honey and bees-wax is collected from the exterior rocky precipices, and from the hollows of trees. It may be necessary here to remark that the poppy capsules, from

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which the opium is extracted, are not punctured till the plants are full 14 months old, this operation being performed by the women and children with a small iron nail, wounding the capsule on the sides towards evening, when during the night, a milk or resin exudes, and coagulates, which is collected on the following day a few hours after sunrise; this operation continues to be repeated every fourth day till the plant shews indications of fading. A few of the plants bear two capsules, but one of them in this case is only punctured, from a supposition if extracted from both, that the opium would then be of a weaker quality.

The Agricultural instruments in use here are precisely the same rude machines seen in the low country: the plough, &c. are all constructed by the Cotters. The Agricultural season commences with April. After a few heavy showers of rain, the lands undergo the operation of ploughing three or four times; the seed of the following grains is then sown, corally, gunja, shamay, wheat, mustard; garlic and onions also are planted, in August gunja is reaped; wheat and mustard, garlic and onions are gathered at the same time. In January following reap corally and greens seed: during September the fields are again ploughed and manured, when poppy, peas, and fenugrick seed is sown, and more garlick planted: in December, gather the poppy capsules, and reap peas and fenugrick seed. From the above remarks, it will appear that cultivation is continually going on for nine months in the year, during which interval some of the grains yield two crops. From January to March, the ryots are employed in the repairs of their cottages, and gathering fuel, which is laid up in large stocks in the vicinity where it is cut, and brought to the villages in small quantities when required.

The domestic animals seen on the hills are herds of black cattle and buffaloes.

The cows produce rich milk in small quantities, and the bullocks are the only animals yoked to the plough; they are however of an inferior kind and generally thin. The buffaloes are superior in size and make to any in India, and are excessively savage. They roam at leisure, in very large herds on the pastures in Mullanaad, are chiefly the property of the Todáwars; they yield very large quantities of rich milk, which is manufactured into butter and ghee, and forms one of the principal articles for export. The wild animals are the elk, spotted deer and hog. Bears and tigers not a few, the latter have been known to attack men, and the buffaloes grazing in the pastures to the west frequently fall a prey to this ferocious

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animal: hares abound in all parts, as also pea and wild fowl, and black quail, doves, and a variety of other birds, together with vultures, kites and ravens: but the common crow is never seen to frequent these regions.

The climate of these mountains, is perhaps the finest known between the tropics: during December, January and February, it is extremely cold; water is often frozen during night, and the ice is sometimes seen to remain on its surface after sun rise: but during the other nine months, it is delightful the whole day: in the morning it is often below 50°, never above 60°, and never in the hottest day in this interval, does it rise above 75° in the shade. Notwithstanding the gelidity, the inhabitants appear on the whole to be extremely healthy: fevers are sometimes prevalent, but of a slight nature, arising perhaps from exposure to the keen night air and rain; they are however in other respects free from most epidemic diseases, the small-pox excepted which is much dreaded here. It is singular in so extensive a population that a deformed object is rarely seen; yet from the promiscuous intercourse of the sexes, there is strong reason to believe, they are not altogether free from venereal complaints. A very favourable idea of the salubrity of the climate may be drawn from the many instances of European gentlemen recovering their health after a short residence on them, a circumstance which of itself proves beyond a doubt its extreme healthiness. It is however injurious to health to be exposed the whole day to the keen air and sun, it having a tendency to make the face and lips very sore: the pain arising from it does in some individuals create fever. The south-west or Malabar monsoon has its influence here. It commences early in June, ushered in with violent winds and sleet, with sometimes a heavy fall of rain. This continues with short intervals of fair weather to September, when the north-east monsoon shows indications of setting in, the wind blowing from that quarter, is followed with heavy showers of rain, with thunder and lightning during November and December. From the middle of the latter month to May, the weather is generally fair and serene. In April some heavy showers are experienced, with thunder and lightning, accompanied with hail, and the wind then blows from various quarters, mostly from south-east. During the prevalence of both monsoons, the mountain is for many days together enveloped in dense fogs, which disperse after a heavy shower, when the atmosphere clears up, and the weather continues fair for some days.

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Nothing of note of fortifications and other ancient buildings, is to be seen here, with the exception of the site of two forts, which though of modern date have fallen to decay; Mullacottah at the head of the valley commands an extensive view of the Mysore country, it is situated 3 miles south-east of Shooloor, built of stone and mud, in form a square, and surrounded by a deep dry ditch, its interior overrun with jungle. Hoolicul on a conspicuous detached ridge to the south, is built on an inaccessible bold bluff rock, with many inequalities, occupies a large surface, its shape an irregular rectangle. The access to it leads over the saddle of the ridge, through an extensive lofty forest, then up a perpendicular rock, admitting the passage of only one individual at a time. It commands an extensive view of the low country to the south and east, and also a large portion of the surface of the mountain on the north; these places were once garrisoned by a few of Tippoo's troops, with a design to keep the mountaineers in check, and also to assist the Sultan's servants in collecting the yearly revenue. It is worthy of notice that there are circular towers on the tops of most of the higher and flat eminences called hokuls: a few of them are perfect at the present day, being in diameter about 20 feet, and 5 feet high, built of loose stones, the interior strewed about with broken images of idols, &c. From this circumstance it would appear that they were once places of worship, but no account of their origin can be obtained from the present inhabitants, further than that these edifices were built by the Boopalams, predecessors of the present race of the Todáwars.

A coarse cloth worn by both sexes may be considered the only article imported, excepting bars of iron for implements: tobacco and other requisites being purchased by the inhabitants at the weekly markets held at a few large villages in the low country. The exports consist of wheat, poppy seed, opium, honey, wax, garlic, onions, mustard, fenugrick, vussumbú, ghee, and a little of the superior kinds of dry grain, all which find a ready sale below.

Stone is found on many of the ridges impregnated with Iron ore. A small hill to the south-west of Trichaguddy is remarkable for it; much of it is also to be seen mixed with sand of the different streams washed down the slopes of the hills. None of it is however smelted here, it being imported in bars from the low country.

There are no less than five roads or paths, through different Passes, communicating with the villages on the surface of this mountain. Of these the most easy of access, is the one lately made by a party

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of pioneers; it is the most frequented by travellers, and admits of palanquins; horses and laden cattle go up it with much ease. The road to the Pass strikes off from the left bank of the Bhavany river at Sirmogay, proceeds thence waving north-west 3 miles over level ground and low jungle to the base of the ridge: here commences the ascent, steep, zigzag and rugged for a mile northerly, to the shoulder of the ridge, along which it winds westerly with many inequalities, principally ascending till it gains a gap, between two high woody tops near Coonjapany; from thence it descends rather steep on the southern slope of the ridge to a level surface, gradually descends to a nullah, and ascends from it to a temporary bungalow at Serulú, a delightful situation, amidst lofty wood, about 4000 feet above the plain. The road now winding north-west descends gently for half a mile, then in forest over a level surface, west one mile; crosses a couple of small streams flowing to the east, and here leaves the forest; the ascent again commences, winding round on the eastern brow of hills, in a general north-west direction, in a deep valley, along a branch of the Kaunday river, close on the right, pouring down in cascades, and after crossing several small streams gains the cultivated slopes, passing the villages of Jackatolla and Jackawary on the left, to the bungalow near Urravan on the right; from thence the ascent is steep, and, winding round the east brow of a wooded hill, it arrives at a plain level surface, Mailcotagherry village on the left; then gently winding almost to the summit of another ridge, deep valley on the left, descends gradually to the bungalow at Dimhutty, a distance of 16 miles 4 furlongs.

		M.	*fur.*	*yds.*
From the left bank of the Bhavany to the base of the ridge	is	3	2	160
to Coonjapany, ascent steep		3	1	0
to Urravan Bungalow, descent		1	2	20
to Do. Do. Do. and descent		5	6	40
to Mailcotagherry Village, ascent		1	3	40
to Dimhutty Bungalow, gentle descent		1	4	180
Measured distance, Miles,		16	4	0

The road leading from Danaikencotta on the west will scarcely admit of laden cattle, being very rugged and rocky, the road from the above place waving over dry grain fields, and some low jungle for 1½ miles to the base of the ridge, which it commences to ascend, and proceeds winding westerly on the summit, has a gentle descent

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to Urracode in a small valley, cultivated with plantain, jack, and other fruit trees, thence it descends to a large stream, ascending very steep it winds over the southern brow of the Rungasawmy hill, thence down a valley, crossing another steep ridge, ascends a slope, winding gently—Daynaad on the left—descends a small rugged Pass to a temporary bungalow on the right, again ascends gently to the summit of a ridge, winding round the west brow of a hill, descends northerly into an open valley between low hills, for about a mile and a half descends westerly another small Pass to Nedancolum, a fine village on the right, from thence over low plain ridges, crossing two large streams in swamp, ascends another ridge and descends by a zigzag rugged Pass to a large stream north-west of Cuppatatharay, then up the low brow of a low hill, gently ascends through low jungle, and crossing another small stream rises up to Dimhutty, being on the whole a distance of twenty miles seven furlongs.

From Danaikencotta to the foot of the Pass .... is	1	5	100
to Urracode generally ascending	5	3	
to Daynaad bungalow—do	10	6	100
Nedancolum, first part ascent, then descent	16	0	100
Dimhutty ascending gently, steep descent, ascends....	20	7	0

This communication with Dimhutty though circuitous, is for a considerable way carried over very easy ground, with the exception of the first portion of it to Daynaad. The Pass on the whole is of an easy ascent, and may be made practicable at a small labor and expence for laden cattle. The pass leading up from Aulhutty, on the left bank of the Bhavany is short, and therefore difficult and steep, joins the new road near the Serulu bungalow, the ascent up the ridge being only two miles. It may be made practicable for laden cattle, and is constantly traversed by the hill people, in preference to the new road, the communication being shorter with the villages on the plain. The Pass from Keelúr down to Soondaputty, a deserted hamlet on the left bank of the Bhavany among hills, is in a great measure steep; from the bungalow at the above place, the path runs south-west ½ mile, having the hamlet of Munjacumba on the left, it winds easterly on the saddle of an open ridge, ascends gently almost to the summit of Soondabetta, in high grass and date bushes, winds on the western slope, southerly to a small pool on the right, then south-easterly to the exterior or fall of the mountain, descends gradually winding to a wood and hut, thence descent steep, passing over a flat rock south-westerly to a nullah, keeps along it for a short distance, and crossing it passes over gentle ascent, descends and

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crosses the Manar river, and ascending from it, takes a south-westerly course, descends then south-east, passing over a rather level surface to Soondaputty, and is on the whole a tolerable path, the Pass excepted being tedious in the descent.

From Keelur to the summit of the Pass	3	7	160
to Nullah at the foot of the Pass	6	4	200
to the Manar river.....	8	1	40
to Soondaputty Banian Trèe.....	10	0	0

The road and Pass on the north, leading down to the table-land of Davaroypatam, at present frequented, leads from the village of Kulhutty, descends and crosses a ravine near Tudukully, thence on a flat cultivated surface, intersected by three inconsiderable streams, ascends a low ridge, and descending gradually to a large nullah crosses it, and two smaller ones to a buffalo crib, on a flat table, on the margin of which it runs east-north-east to a nullah in a wood, quitting it descends abruptly by several zigzag windings north-east and north, latter part very rugged to Courmullay, a deserted village at the foot of the mountains, the whole length of the Pass being 2½ miles; the path on crossing the Mullayacotta river and some ruins to Shegoor northerly, runs N. N. W. over some uncultivated paddy lands, and through a jungle of sandal and bamboos, recrossing the above river, here called the Cottaar, from thence again N. W. by N. over high ground covered with low and open wood, again crosses the above river to Shembanuttum fort. This Pass is the most difficult, yet admits of laden cattle, is on the whole from Kulhutty to Shembanuttum a distance of 9¼ miles. The original road skirting the eastern side of the Mullayacotta valley, has been impracticable for years, from parts of the ridges having fallen and barred the path in many places.

The communication on the surface to the westward from Dimhutty runs on a ridge south-west to Tandanaad, thence through the opening of a high ridge W. N. W. between hills on easy slopes, and crossing a nullah ¼ a mile north of Kulhutty, ascends a ridge, descends it to the Kookul stream, ascends a long slope in low jungle to a conspicuous tree. Kuggoochy, a small hamlet on the left, leaving it ascends a small winding Pass, then on a level slope, at the summit of the Kookul valley, Trichaguddy on the left, descends and crosses a stream and marsh, rises gently from it, and descends rather steep to the bungalow near a winding stream; crosses it to the village of Kodavamudy, on a gentle slope: the road to the west descends, and, crossing another winding stream, rises gently to the

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village of Toonairy on the right, then descends on a brow, and crossing another hill stream winds gently up to Hunnikurray on the right, thence ascending on a slope, has a short descent to a winding stream, on crossing it proceeds on a ridge, Kandhutty 2 furlongs on the left, winds round a hill, steep valley on the right, and crossing a few small streams gains the village of Kandhutty, from thence over a level surface, descends rather steep, and crossing a large stream, ascends to Kulhutty on the right: here branch off two paths, one described above leads easily down to the valley, crosses another rivulet, Mailcotta fort on an eminence on the left, descends steep and circuitous to the Mantar, a large winding rivulet, ascent on passing it very steep for a quarter of a mile, then over waving ground to the village of Shoolur: from this place paths lead off to the south and west, traversing the pasture lands of Mullanaad in all directions.

From Dimhutty to Tandanaad	0	6	50
to Kuggoochy	5	0	60
to Trichaguddy	6	3	120
to Kodavamudy bungalow	8	2	60
to Toonairy	9	4	60
to Hunnikurray	10	7	180
to Kandhutty	14	1	140
to Kulhutty	14	7	100
to the Mantar	16	5	100
to Shoolur	17	6	100
From Kodavamudy to Toomanhutty	3	1	0

The path from Dimhutty to Whotakaymund, leaves the former one 2 furlongs south-east of Tandanaad, proceeds south, crosses a small stream, keeps waving on a plain surface westerly, Orasola village 3 furlongs on the right, continues to wind on gentle slopes south-west, crossing three inconsiderable streams, gently descending and ascending a high hill on the right, descends a small Pass, and crosses a large stream 2 furlongs west of Togalhutty, and ascends another ridge southerly, descends on the western slope of it, and crosses another irrigating stream at a junction a furlong north of the village of Yellithoray, situated on a cultivated eminence; the path then runs on a level to the south-west in a narrow valley, low steep ridge covered with jungle on the left, ascends gently, leaving a swamp on the right, and a remarkable hill with a single tree beyond it; it then descends into a narrow vale, crossing a large stream to the top of a ridge, on the slope of which it de-

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scends rather steep, crossing another large irrigating stream below a confluence, and rises southerly to the village Munjatulla, then on the north brow of a ridge, waving descends into an open valley, and crossing a few smaller streams on a waving surface, ascends a high ridge rather steep, Yellanully village on the right 2 furlongs; from it descent steep to another stream, and rising again waves round the southern brow of a hill, gently glides down westerly into a valley, Kaytee on the right, and crossing several hill streams at short distances, gains a ridge, and ascends N. N. W. to its summit, descends and crossing another stream, winds round the eastern brow of a hill to a gap, then waving gently down on the western brow of high hills, to a small stream and marsh, ascends the flat ridge of Whotakaymund, Mr. Sullivan's bungalow on the left; it is in general a good path but very circuitous.

From Dimhutty to Tandanaad	0	6	0
to Togulhutty	4	1	120
to Yellithoray	5	2	0
to Munjatulla	8	4	120
to Yellanully	11	0	120
to Kaytee	12	3	20
to Whotakaymund	15	4	20

The direct road now making by a party of pioneers to Whotakaymund, runs south of the village of Orasola, passing a ridge, winds on a waving surface between Pedhal and Kulhutty, ascends a ridge, and descends it rather steep on the west slope of a large rivulet, crossing which it ascends an easy slope, runs south of Billycumba, descends from it to another stream, ascends an easy slope, and winds north of the villages of Tatarvane, Puggala, and joins the summit of another ridge on which is situated that of Cumbutty; it then descends on the northern slopes of a hill, leaving Cumbagay on the right, descends to a stream, from it ascends another gentle slope, on which it keeps waving for a considerable way. Toomunhutty on the right, 2 furlongs, ascending winds round the eastern brow of the Koonatachapa hill. Village on the left, descends and crosses a few streams, and uneven ground, ascends to the summit of Dodabetta ridge, and ultimately winding in its descent on a slope of the same to Whotakaymund.

From Dimhutty to Orasola.....	1	2	0
to Kulhutty	3	0	0
to Billacumba	4	1	0
to Puggala.....	5	2	0

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to Cubbagay, ...	6	3	0
to Toomanhutty, ...	7	1	0
to Koonatachapa, ...	8	5	0
to Whotakaymund, ...	11	3	0

To enter into a full description of all the paths, would perhaps be superfluous, the surface of the hill being traversed by them in every direction. A few of those measured are however here inserted.

From Mullacottah to Nunjanaad,.....	8	6	20
Nunjanaad to Whotakaymund,.....	6	4	0
Ditto to Ootalmund, ...	6	2	0
Ditto to Keelur, ...	8	1	100
Keelur to Kaytee,.....	8	4	0
Whotakaymund to Baricooly, ...	7	2	0
Baricooly to Keelur, ...	4	3	0
Nunjanaad to Baricooly,.....	3	6	100

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A Statistical Table of the three Naads on the Nilgiri Mountains.

Number.	Names of the Naads.	No. of Villages.			No. of Munds.	No. of Peons.	Husbandmen.												Herdsmen.		Artificers.				No. of Ploughs.	Bullocks.	Cows and Calves.	Buffaloes.	No. of Houses.
							Lingavunt.		Buddagers.		Torayens.		Kycolens.		Mullu-coormburs.		Baders.		Todáwars.		Cothurs.		Cussuvers.						
		Principal.	Subordinate.	Total.			Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.					
1	Parunga Naad, ..	32	25	57	3	62	59	62	621	532	80	70	0	0	17	10	0	0	13	7	69	57	0	0	166	431	605	892	493
2	Maika Naad, ...	7	37	44	2	34	12	11	446	411	27	21	0	0	0	0	0	0	7	5	22	22	0	0	81	202	434	332	278
3	Thodava Naad, ...	12	47	59	39	55	23	15	696	647	10	9	12	9	0	0	3	2	120	70	81	66	5	4	161	708	734	1385	455
	Total ...	51	109	160	44	151	94	88	1763	1590	117	100	12	9	17	10	3	2	140	82	172	145	5	4	408	1341	1673	2609	1226
	Total of Male and Female,						182		3353		217		21		27		5		222		317		9						

Male, ... 2323
Female, ... 2030

Grand Total, ... 4353

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Miscellaneous Observations on the inhabitants of the Nilgiri hills.

It may be necessary in this place to give some account of the different castes of people inhabiting this vast mountain. These principally consist of four castes, Buddagers, Todáwars, Cotters, and Mullucurumburs, the latter are the officiating priests to the former, who are the principal cultivators, occupying villages and lands in all the three Naads or divisions, with the exception of the western portion or Mullanaad, dependant on the Todawanaad, a tract of low green hills in ridges affording pasture to large herds of buffaloes. About it are interspersed the Kralls or Munds of the Todáwars, in remote places to the west, forming their summer, those again to the east, almost on the skirts of the Buddager villages, their winter habitations. Each division has its Cotter village, distinct from the Buddagers. They are in general extensive, having from forty to fifty houses, arranged in lines; they are the artizans, and also cultivate large tracts of land, around their habitations. The women of both these classes, perform the principal labours of the field, in common with the men, who, however, leave the more arduous service of watching, weeding and cleaning them to the women after the plough has done its duty. In their physiognomy, habits, and language, they materially differ from one another, the prevailing language among all is the Canarese, much corrupted with peculiar phrases and idioms of their own invention: they are perfectly illiterate. An attempt to establish a school among them at Daynaad, not long ago has failed, on what account is not known.

Agriculture in primitive times was carried on on a very limited scale by the Mullucurumburs only, in exterior valleys and slopes. To the Buddagers must be attributed the merit of diffusing husbandry all over the face of the mountains, to these aerial regions they are said to have emigrated about four centuries ago from Woomatur, and other places in the south of Mysore, and consequently have derived the appellation of Vada or Buddagers, having come from the north, the compound word Budda-gur signifying literally, people of the north. It appears they were originally invited by a Chieftain or Rajah of Woomatur, who had about that period taken refuge on these mountains, who on their arrival finding the land fertile settled on them, and in course of time were followed by others, and now form the largest proportion of the population of the hills. This class of people are again subdivided into the following sects. Harruwars, Buddagu, Shevacharas, Odykary, and Torayen;

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these do not intermarry, however agreeing in most other particulars. The Hurruwars are of the superior class; and wear the sacerdotal thread, similar to the Brahmins of the low country.

Of the Buddagers.

An individual wishing to marry proceeds to pay court to one of the other sex, for a month and upwards. During this interval he is assiduous in making her small presents, and by attention he seldom fails of gaining his object. He then settles with her parents the stipulated sum to be paid, which varies from six to ten pons (fifteen to twenty rupees). Matters being thus adjusted, he takes his partner home, and the ceremony concludes with a repast. The parents of the young woman make over with her a cow and bullock, a metal dish, and an ornament for the neck called a tally. It often happens that the present stipulated is not promptly liquidated, but payment deferred to a definitive period on ample security. In default of payment, the relatives of the woman endeavour to separate her from her husband. If she will not be prevailed on, it is then determined according to the circumstances of the husband, a part of whose cattle and other property is disposed of to meet the demand. Polygamy is not uncommon among them. An individual may have two or more wives, if his circumstances will admit of maintaining them, and they generally speaking prove of infinite service to him in the labours of the field, the largest portion of that duty devolving on the women. The standard of union here appears very fickle and capricious—divorces or separations are not uncommon, arising from disgust or disaffection, and when such is the case, are seldom reconciled: this disposition to incontinency is more predominant with the fair sex. In case of a separation of this nature, all the children remain with the father, and the woman is moreover obliged to give up all presents, &c. she may have received, the dowry being left to be adjusted on her second espousal. In case the woman is in a state of pregnancy when she takes this measure, the child when weaned is also consigned to its father, who pays her six rupees, twenty cantiria fanams for her trouble. Her next husband pays the amount of the dowry stipulated on the former marriage, and is moreover responsible for all debts she may have incurred during it, which if not liquidated by her second husband, she is separated from him by coercion, and married to a third person fixed upon by the community. While in a state of separation, if she should have clandestine intercourse

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with another individual, and prove with child, the gallant is then compelled to take her, on paying the stipulated dowry.

Their funeral rites are performed in the following manner, the corpse is laid on a cot, opposite to the house, under a canopy four feet high. From the centre rises a pole of ten feet, with cross yards decorated with pendants of white cloth. Beneath it are exposed in wicker baskets, boiled victuals, grain, &c. as offerings to the defunct. The relations and neighbours for a considerable time keep singing and dancing round the canopy; the ceremony concludes by knotting in a corner of the shroud, the roll of a palm leaf, worn by the wife of the deceased on her ears; and the contrary if a woman dies a piece of light wood, worn by the husband; the corpse is then removed to the pile accompanied by music, and consigned to it with the oblation; the male children of the deceased shave their heads and face. The sect of Shevacaras bury their dead.

Besides Rungasamy, the deities worshipped in the interior are Hereadeo, and the goddess Hethadeo; also a subordinate deity called Kunkotú Karodia, or the eye-giving power: the latter is their tutelar goddess. The Harruwars and Shevacaras have their Mahalinga.

The coarse clothing of the mountaineers, stiffened with starch, intended as a defence against the gelidity of the climate, gives to men, and more especially to the women, a most uncouth appearance. The men wrap round them a large sheet with coloured borders, and a handkercief about the head: those individuals who can afford it, have rings of gold to their ears, and of silver on their fingers. The dress of the women consists of a coarse cloth four or five cubits in length, hemmed in at the upper and lower extremities by triple lines of cotton twist, and drawn up in a fringe, giving it the shape of a petticoat, fastened with ligatures below the arm and midriff, yet in spite of thick starch and bandages, exposes a great part of the legs. Their jewellery consists of heavy brass bangles, worn above the elbow of the right arm, and those that can afford it, a silver bracelet graces the left wrist, rings of gold and brass to their ears, fingers and toes, with a pendant jewel affixed to the membrane of the left nostril. Very few, if any, of the women in years can be termed beauties. The fine features of some of the young girls, occasionally seen, are eclipsed by their awkward dress and propensity to dirty apparel. A few of the males in circumstances are robust, and well made, but the generality are meagre and of a phlegmatic temperament, occasioned by the poor diet they subsist on, and the pernicious use of raw opium; in their disposition, with but a few excep-

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tions, it may with propriety be said they are cunning, suspicious, and incommunicative; in their dealings with strangers they display a covetous desire for lucre, which stimulates them to duplicity and falsehood; among themselves they are tolerably social: jealousy is perhaps a negative passion, as fornication appears to be the prerogative of both sexes.

They subsist generally on koraly and shamay (two species of millet), gunja or barley, and the flour of the keeray or garden greens seed. Condiments are not in general use, but garlic gives a zest to all their meals, they are not averse to animal food (beef excepted), but very little, if any enters their fare, excepting at a marriage, or some grand day of feasting. Milk, tyre, and rancid ghee, may be considered among their luxuries.

In all the duties of husbandry, women partake more of the labors than the men, the holding the plough is perhaps one exception, being the sole duty of the men, performing all the duties of the field, besides their internal household affairs, to which in a great measure we may attribute their strong harsh masculine features and deportment; the dairy it must be remarked is, however, the exclusive duty of the men, the milk kept in an inner apartment, and there churned: the females are scrupulously prohibited from entering it. The poorer class make good porters.

Todáwars.

The remarkable dissimilarity of these people in their persons and features from the other mountaineers, is very striking. They are evidently a distinct race, and are in fact the aborigines of these orial regions. Their origin it is impossible to trace: when interrogated on this point, we could only learn, that they have some idea, that they were originally self-born, and they have also a notion that their ancestors in primitive times were the palankeen bearers to the Giant Rawan, and were expelled from Lunka on his being slain by Rama. This migratory tribe confine themselves and herds of buffaloes to the Mullanaad, Taranaad, and Keelarum hills, which afford excellent pastures. This tract, consisting of the western portion, denominated Tondanaad, is marked by several of their Kralls or Munds, with a circular roof of thatch, and a door scarce high enough to admit a dog, into which they crawl on all fours. Their site in general retired, near a tuft of forest trees in delightful situations, with extensive circular pens fenced with wood and stone for their buffaloes; those towards the west are occupied during summer. On the

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approach of the Malabar monsoons, they retire with their cattle to the east, on the skirts of the Buddager villages. A few families however continually reside in Parunganaad and Maikanaad, and tend with their own the cattle of the Buddagers. Their chief occupation is the care of their buffaloes, and the dairy, for which purpose a house of large dimensions at each mund is reserved : a part is by them considered sacred, women not being permitted to enter it. They also perform such ceremonies in use on the anniversary of their deceased relatives ; having no temples or other place of worship, each clan being in possession of from one to two hundred buffaloes, pay a tax annually for each cow half a rupee : this they are well enabled to do, from the sale of raw ghee and poultry. Leading a pastoral life, and abstracted from all agricultural pursuits, they are indebted to the Buddagers for grain given them gratis at the annual harvest, a custom from time immemorial, in consideration of their being the hereditary claimants of the soil. On the celebration of any marriage among the more wealthy Buddagers, they receive from a quarter to half a rupee as a present ; they also subsist in a great measure on a variety of bulbous roots, procured by digging, large quantities being obtained on all the hills in the Todawanaad. The Todáwars are in general well made, and robust ; in stature tall, some of them exceed six feet in height, and approach nearer to the European in feature, with Roman noses ; they evince a friendly propensity to strangers, and appear to display more candour than their eastern neighbours ; but it must, however, be remarked from personal observation, they are not now behind the Buddagers in cunning, deceit and falsehood. The women are reputed beauties ; some of the younger ones are possessed of handsome lineaments, and exceedingly fair, with some vivacity, but like all other native women are old and wrinkled, before they attain their thirtieth year ;—the men are very much attached to them, and carry their affection for the sex to a most voluptuous degree. Their colloquial language is the Canarese, as spoke by the Buddagers, but they have a most difficult and intricate one of their own, perfectly distinct from all the languages of India, and only known to themselves : (they are illiterate.) The same neglect of cleanliness in their apparel is observed here : both men and women wear a large white sheet, with coloured borders, the only difference observed is the manner of wrapping it about the person :—with the female, the habit is a perfect dishabille ; the right hand, which is exposed, serves to keep the wrapper from disrobing, or being blown away.

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The men wear a scanty piece of cloth round their middle, in addition to the sheet thrown round the shoulder, and hanging to the knees, wearing their hair thick, and full six inches in length, with bushy beards, having recourse only to shears, when either become troublesome to the wearer, and never by any chance are known to shave or cover the head. The women have flowing tresses waving down the shoulders, and often curled up with short sticks; on the whole, they pay much attention to their hair, anointing it with rancid ghee. In lieu of jewels, which all are unable to afford, with the exception of a couple of brass bangles on the right arm, and silver or brass rings on the fingers, they puncture with an indelible black dye, their necks, hands and legs in imitation of jewellery. A singular custom among them is wearing a brass chain or girdle next to the skin round the waist, an appendage that no grown-up woman or girl should be without. They have no formal rites of marriage, concluding alliances by reciprocal choice, the present on the part of the man to the connections of the bride, being from six to eight buffaloes: when arrived at the house of her husband, she is obliged in case he has brothers to acknowledge them as husbands, and to render them the services and submission due from a wife. Independent of her husbands, she is by their laws allowed to choose an individual from a separate family as a gallant, styled coombhal, who is as eligible to her embraces, as any of the former: in short the coombhal has a discretionary power over her, for in case the young woman should be at the house of one of her husbands, and the coombhal comes in, the husband immediately retires, and leaves her to his alliance. The legal husband contributes towards her maintenance, and the coombhal provides her with a cloth yearly, with tobacco, and other small presents. Notwithstanding this inconsistency, the Todáwars live very peaceably together. The partition of the boys begotten in this manner, chiefly depends on the seniority of the brothers, the eldest claiming the first born, and so on consecutively; the girls left to the care of the mother, are generally betrothed when very young. In a connection of this nature, when one woman is common to a plurality of husbands, it is natural to suppose, that the males must far exceed those of the females. An investigation into the cause of this disparity in the sexes, has led to a supposition that they have been in the habit of destroying the females hitherto, at least those born on ominous days of the week, by some unnatural means, leaving them, as has been conjectured, at the door of the pen to be trampled by the buffaloes rushing out

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furiously when liberated; and if what is above stated be a matter of fact, we have still to ascertain the cause from whence originates this unnatural deed. The duties of the women often lead them out to tend the cattle when grazing, they also attend to all domestic affairs, the dairy excepted, and when at leisure amuse themselves with needle-work, darning the hems of cloth, with red and blue thread: in this performance they display some taste, and are by the Buddagers for whom they work, recompensed with grain, or small money according to exigencies. In their migrations, the infirm and old women are removed on the shoulders of the men: this circumstances gave rise to a credulous report, that they invariably transport their women in this manner. It has been an ancient practice among them, that one of the males should devote himself to a life of pious solitude; such is denoted a Terriara, and sometimes Pollon, who is reverenced as a priest: this anchorite resides perfectly secluded in the recess of some deep forest, in a state of nudity, a small hut being there prepared for him, seldom communicating with the laity: such of those who have any temporal or spiritual business, accost him and hold a conference, taking care to keep at respectful distance. The Terriara is generally the most wealthy of the tribe, having large flocks of buffaloes, presented to him by the laity, the produce of which is chiefly distributed among the herdsmen, the anchorite reserving but a small part to himself; he however occasionally makes an eleemosynary excursion to the neighbourhood of the munds. The dairy or milk-house (having no pagoda or idol of worship) is consecrated annually in memory of departed relatives. On this occasion they burn a lamp fed with butter, and make offerings of milk, ghee, fruit, invoking the manes of the departed souls with supplication; during the performance of these ceremonies, the Terriara is invited to officiate as high priest. The office of a Terriara is by no means permanent, he may resign of himself, by signifying his intention to the community at large, who appoints some other individual in his room. From what is above stated a conclusion may be drawn, that they are not very zealous idolators, yet are superstitious enough to have their lucky and unlucky days: this has a powerful influence in all their concerns. Thus Thursday, Saturday and Sunday, are reckoned good days; and the contrary with the remainder of the week. If a person dies on any of the ominous days the funeral rites are deferred to the succeeding good day: the ceremony on this occasion consists in assembling the relations of the deceased, when they utter their con-

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dolence in loud lamentations; after this follows a sacrifice of two or more buffaloes, which are killed with heavy clubs, and their skulls and horns chopped off; the corpse is then placed on the pile for cremation. On the anniversary following, the relations convene at the same spot, each bringing a buffalo. To these are added others belonging to the stock of the deceased, and picketted near the place, where the body was consumed; the ceremony being performed, eight or ten able men with heavy clubs enter on a promiscuous slaughter, when they proceed to part the horns from the head of the animals. It has been a perfect mystery hitherto, what was done with the flesh of these animals; from some inquiries in another quarter, it has been ascertained that the Todáwars eat of it, and are in the habit always when they can afford it, of partaking of the flesh of this animal, the hides serving them as beds when clean and dressed, yet they pretend all animal flesh to be unclean.

Múlúcorombers.

The aggregate amount of this caste is very small, inhabiting the recesses of the valleys, or slopes of the mountains, towards the plain country. They are a primeval race, almost contemporary with the Todáwars, have an equal right to the inheritance of the soil, and from very remote times have followed the occupations of husbandry, cultivating the steep acclivities, in the execution of which they only use the hand hoe, a species of culture called Cottúkad, and assessed very moderately. The produce of their fields however is very precarious, and seldom affords them a sufficiency for consumption, for which they are in a great measure indebted to the Buddagers, to whom they officiate as priests. The Buddager will never undertake any agricultural affair, without some ceremonies performed by the Múlúcoormber, who is feed for his spiritual duty. At the commencement of the ploughing season, a sacrifice of fowls and sheep is offered by the Múllúcoormber to Kalibuntiyan. This ceremony ended, he holds the plough, and turns up the glebe in each field, when the duty of the husbandmen commences: he then receives from each ryot from four to ten colagays of grain according to the circumstances of each individual and retires at harvest time; his services are again required to apply the sickle to the ripe grain, when the reapers proceed for this duty, he is permitted to take as many of the sheaves as he can well bear away on his shoulders:—their marriages, funeral ceremonies, are similar to those of the Buddagers, differing very little in their habits, and manners from

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them; living in a seclusion they are seldom seen abroad, visiting the villages from mere necessity.

Kothurs.

This caste of people are the most industrious race on the Nilgiris, following all the most useful occupations, as carpenters, blacksmiths, potters, &c., and officiate as musicians at feasts, funerals, and marriages; in short they are the only artizans on the hills, and are moreover good husbandmen, paying more attention to agriculture; the fields appear to thrive better around their hamlets than those seen in the vicinity of the Buddager villages. They are however of a very inferior caste, and by their neighbours considered in the same light as the Chuckler in the low country. They have cattle, but from superstitious motives never milk the cow, are not permitted to have buffaloes, but such unserviceable old animals as the Buddagers dispense with for a trifle; these are allowed to die, when they partake of them, in short, of the flesh of all kinds of dead animals; not being allowed by their laws to kill any. The hides being dressed are disposed of to advantage. Their exterior and filthy propensities render them so peculiarly disgusting to their neighbours, that a Buddager will not drink of the stream that flows in the vicinity of their villages, polluted as it is supposed to be, with the flesh of the dead animals and their raw hides, these being generally drest on the side of a stream. In all the three divisions or naads, are Kothur villages, denominated Kothagerrys. These hamlets though few, have generally a large population, and always in pleasant situations, with a grove of large trees, present an agreeable prospect from a distance. They are a more ancient people than the Buddagers, their dress similar to that of Todáwars, both sexes wearing their cloths in the same manner as the latter race. The men go bare-headed, wear the hair long tied in a knot behind. They are in general of the middle stature, ill made, short and bad-featured. Some of the women however are fair, and withal well made and handsome.

The ceremony of marriage, if such it may be called, takes place on the mutual consent of both parties, being allowed a previous cohabitation. The parents of the young woman receive from the husband a compensation of three to five rupees. The man is at liberty to take a second wife, provided the first has no male issue after three successive female births. A woman from any disagreement is allowed to separate herself from her husband; in this case she leaves all her chil-

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dren, and moreover returns the present on marriage; but to their credit it may be said, though mean and contemptible, that female infidelity is not common. Their ornaments are of small value. Copper bracelets adorn their wrists, and brass bangles above the left elbow, the neck decorated with black beads of stone or glass. The Kothurs burn their dead, and worship the manes in some dark grove on the following anniversary, Their idol is Cumbatodeo; for the worship of this deity, small thatched edifices are erected, and offerings made on certain occasions.

Irrelurs.

These are a distinct race of people from the other highlanders of the mountains, classed among the lowest of the Soodra caste, are very little superior to the Pariar, diminutive and ill made, are grossly ignorant, and in their apparel scanty, and excessively filthy. Their cottages are situated on the exterior slopes and valleys, the sides of which they cultivate with a variety of dry grain, also plantain, jack, and other fruits, which are seen in groves in the bosom of low valleys. They have scarcely any communication with the people of the hills, but often come down to the plains to dispose or barter plantain, and other hill productions at the market villages. Those occupying the ridges on the east towards Danaikencota, are invariably called Irrelurs, to the south on the ridges forming the Bhawany valley are called Múdúmars, and on the Northern slopes towards Davaroypatam, they go by the appellation of Cússúwars; these also cultivate large tracts on the plain surface of the table-land, and yet are all one race, differing in no one instance, their customs, manners, and occupation being alike. In their marriages perhaps they are singular. This contract does not take place between the parties cohabiting, till the second or third child is born, when the man agrees to pay a stipulated sum by instalments, as a dowry to the friends of the woman, who give with her as a portion a buffaloe; the contract now becomes binding. In case of her demise, the man must make over the whole of the balance before he forms another connection, but if she should survive her husband who has a brother, she must immediately become his wife, and also to the next, till all are extinct, so that a fruitful woman according to their customs is always provided for. In their cemeteries and burials, they differ widely from the other castes, appearing to venerate the manes of their dead above every other consideration. The cemeteries are scattered in pleasant, but lonesome situations, being a neat house

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quite open to the East:—about the middle and against the inner walls of all of them, are seen a heap of circular black stones; these are placed on one of the community being interred, and consequently are accumulating from day to day. The males are buried on one side, females on the other. The ceremonies and feasting on these occasions last a month, and during this interval the earth lies very loose on the corpse; it is then softened with water, and beaten down after the last rites are performed. If one of the community should happen to die at a distance even, his corpse is sent for, and the usual rights are performed, though it be in a putrid state. The deities worshipped by them are Rungaswamy, and the goddess Masula or Buttracalli: offerings of sheep, &c. are made to her on certain days of ceremony.

III.—*Descriptive and Geographical account of the Province of Malabar. By Captains B. S. Ward and Connor, Madras Survey Establishment.* Communicated by the Right Honorable Sir F. Adam, Governor of Madras, to Major T. B. Jervis.

This Province on the western coast of India, extends from 10° 12′ to 12° 15′ north latitude, and between the parallels of 75° 10′ and 76° 50′ east longitude. The coast runs diagonally in a south easterly direction, and forms a few headlands and small bays. It is bounded on the north by the province of Canara, on the east by those of Koorg and Mysore, to the southeast by Coimbatoor, and to the south by the small province of Cochin. It is divided into 18 talooks or districts, containing 2,222 deshums or villages; few or none of them are compact, the houses being scattered on the skirts of the cultivation. By a census taken in 1827, the whole of the population amounted to 1,022,215, which gives 160 individuals to the square mile. A large portion of country to the eastward being mountains and hills over-run with forests, the population is most dense along the coast, and for some distance into the interior: its superficial area is 6,262 square miles: 788 are estimated to be under rice cultivation, and 120 square miles are occupied by extensive gardens and enclosures of cocoanut, areka, jack and other productive trees: the remainder by low hills, separated by narrow valleys, in general with steep sides and level summits. The slopes in many places are formed into terraces for cultivation. The valleys in general contain

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rivulets. The land a few miles from the coast being low and level becomes inundated during the rains. The soil in all these valleys is extremely fertile, but along the coast is sandy, which in many parts extends about three miles inland, but is admirably adapted for the cocoanut, which valuable tree thrives also on the borders of the cultivated valleys a considerable distance into the interior. This province is intersected by a great many rivers, some of them navigable for several miles inland. They generally have their sources in the mountains forming the ghauts. The Baypoor river which from several sources in the Koondah and Neddawattum mountains, forms one vast body above Nellumboor, and flowing by Yeddamuna and Arriacode runs into the sea by a broad bar at Baypoor. The bar will admit vessels of 300 tons. This river is navigable at all seasons of the year to Arriacode 25 miles, and during the rains laded boats go up to Nellumboor 44 miles. There is also a navigable channel from it, but very serpentine, communicating with Calicut. The Billipatam river is also navigable a considerable way to Yercom, a large town on the right bank, (from thence is a communication by the Pudeacherrum Pass, through Koorg into Mysore :) this river has its sources in the ghauts. The Ponany river, by far the broadest bed, is very shallow in the dry season, but during the rains it is navigable to within 15 miles of Paulghaut. The Pyangaddy river which has its source also in the mountains, is navigable to a few Bazars called Chupparpudavy; it is very circuitous, and few boats ply upon it. Besides the above there are several smaller rivers, as the Durmapatam, navigable for boats to Angarakondy, the Tirwangady, Cherpulchary, and others, all communicating with the sea. Few or none of the rivers have any peculiar appellation, but are known by the names of deshums through which they pass. The forests in this province are very magnificent, a great deal of valuable Teak timber is obtained about the Coteady Pass, the Nellumboor valley, Manar, and in the eastern portion of the Neddunganad talook; also a great quantity in the forests of the Paulghaut. The timber is cut annually and floated down to Calicut, Baypoor and Ponany, the three principal depôts. The palmyra is in great abundance about Paulghaut. The timber is used by the inhabitants in building, but in general the trees are preserved for the toddy, from which jaggry (a very coarse sugar) is manufactured, as also arrack. These articles find a ready sale in the markets and smaller towns.

The range of mountains forming the ghauts run almost parallel with the coast. Here and there they branch westward and form large

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valleys, and abreast of Calicut they recede to the eastward, and form the valley of Ernaud; the ghauts on the north join the higher mountains on the western face of the Neelgherry and Koondah mountains. Here the scenery becomes sublime, peak rising on peak, the slopes or ridges falling from them into the low country extend in some instances to nine miles. The whole of this valley with the exception of a few Kullums or Farm houses, and small cultivated tracts around them, is one dense forest, where the finest teak in Malabar is produced. The portion of the ghauts to the eastward of Manar, extending from the Koondahs to the lofty mountains north of Paulghaut is low; the country above is denominated the Uttapady hills; situated south of the Koondahs. North of the Paulghaut range, and west of Coimbatoor, an extent of about 200 square miles, composed of hills and valleys, mostly overrun with woods. There are several hamlets occupied by a race of hill people called Mudamars, who cultivate some of the slopes. They migrate every three or four years to more desirable tracts. Elephants are innumerable along the whole extent of these ghauts.

There are no compact villages or towns in Malabar, except along the coast, which are generally inhabited by Mapla merchants and Mackwars or fishermen. The principal towns or sea ports are Tellicherry, Calicut, Cannanore and Ponany, inhabited by various castes. There are many opulent merchants at these places, also Parsees from Bombay and other ports to the north, who trade in timber and various articles manufactured in the interior. The towns inland are but few, as Yercom on the north, Angadypuram, Munnar, and Paulghaut to the south-east; the last is extensive and a place of much trade. The town is surrounded by Aggrarums or Grammums forming neat streets occupied by Brahmins, who carry on a traffic in cloth manufactured in various parts of the country: much of it comes from Coimbatoor and other towns to the eastward. In the interior of Malabar the country is divided into estates or farms, situated in valleys, on the margin of the wet cultivation. Families live distinct from each other in gardens, usually inclosed with a high bank and ditch. The houses adapted for different occupations are very neatly built, pleasantly situated under the shade of the jack, cocoanut, areka, and various other trees, and being surrounded by hills and rising grounds, covered generally with wood, have a beautiful romantic appearance. In the southern districts where there is a considerable extent of table-lands, the fall of the

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hills is steep, with ledges of rocks along the crest. In the valleys there is a rich cultivation, fringed with cocoanut, jack, and innumerable other trees.

The produce of the country is rice of various kinds, cocoanut, areka, and dry grain cultivated on the slopes of the high mountains in the interior, which has much increased of late years. In the cultivation of paddy the land is ploughed very superficially. It is manured by ashes of brushwood, cut in the vicinity, also the roots of grass, and refuse from the farm house. It is sown from April to May, and reaped from July to January; the first crop is sown after a few showers in April, has three weedings, and in four months the grain is ripe. The lands are again ploughed from July to September. This crop is by transplantation of plants a month old, and is reaped the third month. In some places a third crop is obtained: for this they plough and sow in January, and there being no rain at this period, the inhabitants have recourse to reservoirs, and turning the water from streams. The soil of the valleys in the interior is very rich, but the flat land a short way from the coast is light and sandy, yet productive. The revenue derived from the cocoanut is very considerable, the produce of the trees varies very much; they are classed and pay accordingly; there are in this province upwards of six millions of all descriptions. There are about half that number of areka trees, and about a million of palmyras (Brab) most luxuriant in the vicinity of Paulghaut. The revenue derived from the latter, though considerable, is inferior to the cocoanut and areka. Malabar is famous for pepper, which is grown in every district, and exported in very large quantities. It is a considerable source of revenue in this province, great precaution is taken to prevent its being smuggled. Cardamoms grow spontaneously on the mountains and forests west of Manantody, the capital of Wynaud. This article has always been farmed, and the produce of late years having increased, has induced individuals to offer very large sums for the exclusive privilege of collecting it. Tobacco, which does not grow in this province, is a Government monopoly. It is purchased by contract from merchants at Coimbatoor, and secured in godowns or storehouses at all the principal stations, and sold to the inhabitants. Salt also is not manufactured in this province, but is imported from Bombay and the northern ports. This necessary article is lodged in store-houses called golahs, and retailed in the same manner as tobacco. The above articles add greatly to the revenue.

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The imports consist of Cotton piece goods, shawls, broad cloths, nankeens, sugar and sugarcandy, also wines, spirits, and many other European articles on which a duty of eight per cent. is charged. The exports are coir, cocoanuts, oil, timber, arrow-root, pepper, cardamoms, japan and sandal wood, turmerick, and areka or betel-nut; sandal-wood, however, is not a produce of the country, but is imported from Mysore and Koorg. The whole pay a duty of from 10 to 15 per cent. but double that amount if shipped on foreign bottoms. A table of exports and imports at the ports of Calicut and Tellicherry accompanies this document, showing the customary duties levied on each particular article.

The year may be said to be divided into three seasons. The hot season is from February to May, during which the thermometer ranges from 80 to 90 degrees. In June the regular monsoon commences, and continues till the full moon in October or November; during this period the rain falls with scarcely any intermission for several days, and is then followed by a few days of fair weather. It sets in with heavy squalls from the S. W. almost every half hour, and continues so until November, when the wind shifts and blows from the eastward. In December showers of rain with distant thunder indicate the commencement of the N. E. monsoon; cool land-winds now prevail till February during the nights, but change to a strong sea breeze a little before noon. In March or April sudden and heavy thunder storms with rain and hail are sometimes experienced, but blow over in an hour. This generally follows very close and sultry weather. During the rainy season the thermometer scarcely varies 10 degrees, and when kept in a cool situation averages from 65° to 80° and sometimes as low as 60° in the morning during the prevalence of the land wind in December and January. Heavy fogs are very seldom seen in the vicinity of the coast, but in the interior they continue till dispelled by the heat of the sun. The ghauts are enveloped by dense fogs from April to the end of the year, dispersing for short intervals, after heavy falls of rain.

With regard to the history and antiquities, as also manners, customs and distinction of the various castes in Malabar, it is only necessary to refer to that invaluable work "Buchanan's Tour through Mysore, Canara and Malabar;" also to "Hamilton's India," where this information obtained from Collectors and Gentlemen long resident in the Province, is more to be depended on, than the crude documents furnished by natives. Doctor Buchanan states that large quantities of salt were manufactured in different parts of

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Malabar. This is not now the case, and the provinces of Canara, Malabar, Cochin and Travancore are supplied with that article from some of the seaport towns under the Bombay Presidency.

A. For a further description of the exterior limit of the coast and southern limits of Malabar reference must be made to the descriptions sent in with the memoirs of South Malabar surveyed in connection with the Cochin province, also that of Coimbatoor.

The Malabar province extends along the Western Coast for 148 miles, the coast in general is excessively straight and sandy, with a few headlands, and forming small bays all exposed to the effects of the S. W. monsoon, as at Mount Dhelli, Cannanore, Tellicherry, and Goodaloor. N. W. of Cochandy, opposite to the latter and about 6 miles in the sea is Sacrifice Rock, called Billicullor the white rock. The water between it and the main land is deep, and ships of heavy burden can sail through with every safety.	4 5½ 45 5 40 6½ 56 7¼ 43 6½ 30 5 34 3 Miles, 256 5¾

B. A concise description of the line of boundary has been above given dividing Koorg from the Malabar province, as the officer in charge of the survey of the former province had every facility in tracing the same, a road being cut along it by the orders of the Rajah of Koorg, a reference to the documents of that survey may throw a better light on this subject.

C. Some very great difference appears in the line of boundary between the surveys made of it in Mysore and Malabar in the space between No. 26 and 33 here above described. In the plan of the limit furnished and which was extracted from the survey made of the former province, a long line is drawn from the Moyer river to the N. W. and along it is written "Line of boundary not surveyed but supposed," and "the Teak forests not explored." From these remarks we would suppose no better information at the time could be obtained. On the present survey this tract has been explored as appears from the ridges and rivers, and other landmarks laid down, and consequently should be depended on as the most correct, though at the same time errors may be on both sides, owing chiefly to the wild nature of the country dividing these provinces, or from reluctance or unwillingness, or perhaps more from the ignorance of the people who roam over these forests in quest of honey, wax and edible roots, on the latter of which they subsist.

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Description of the Kavoy Talook.

Kavoy, the most northern district of Malabar, is bounded on the N. W. and N. by Canara; on the E. by the province of Koorg; S. E. by the Talook of Kortium; S. W. by that of Cherakull, and to the W. it is confined by the sea for 10 miles. Its greatest length is from E. to W. 39 miles, and its breadth N. and S. 16 miles; its whole perimeter measures 125 miles, and contains a superficial area of 521 square miles: 55½ square miles are occupied by paddy lands, 5 square miles by estuaries and rivers, 7 square miles by houses and topes, 23 square miles by flat plains; and the remainder by hills, mountains and forests. According to a census taken in 1827, it would give 88 individuals to the square mile, but the most part of the talook to the eastward being mountainous and hilly, is very thinly inhabited; the bulk of the population is confined almost to a space not exceeding 12 miles from and parallel to the coast.

This division is divided into eight subdivisions, and those again subdivided into umshums containing 138 deshums or estates; none of them are compact with the exception of a few Moplah bazars, which lie mostly in sequestered situations in the interior on the banks of the rivers which are navigable.

Kavoy, the capital, is situated on an island 4½ miles N. W. of Mount Dhelli, or, as the natives call it, Yey Mullay. It is composed of a few streets occupied by Moplahs, who are both merchants and cultivators. There is a large mosque; on the south an old redoubt, built many years ago, by the Dutch, and near it a very good modern bungalow, for the accommodation of travellers passing between Cannanore and Mangalore. The river to the W. is broad, and crossed by a jungar or platform, made fast to two boats, and propelled by poles and oars. The place of the greatest importance in this division is Tullyperumboo, situated S. 86½, E. 11¾ miles from the former place. It is celebrated for a magnificent temple covered with brass plates, and is highly venerated. The village, which is irregular, is inhabited by Nairs and some Brahmins. The talook cutcherry is ¾ mile to the S. E. of the temple, and in its neighbourhood is a bungalow for the accommodation of the Collector and his assistants when on circuit. A short distance from the latter is another celebrated pagoda called Trichumbrum, in the midst of houses occupied by Nairs. It is a place of some sanctity. The following pagodas are worth notice: Piamir situated N. 70, E. 1¾ miles of the capital, is surrounded with a high wall, and the top ornamented with brass.

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There is a large Nair population about it. S. 20, E. 2¼ miles is the celebrated temple of Ramdullah, with the habitations of some Nair families. There is another famous pagoda romantically situated on the northern crest of a table hill, near some paddy fields, amidst habitations of Nairs, called Vullorah, N. 62, E. 13¼ miles from the capital. Though in a remote and wild situation, there are several tolerable roads leading to it. It is a place highly venerable to all classes of Hindus, and during the festivals is much frequented. Besides the above there are a number of minor temples at all the large Deshums in the country. One of the princes of Cherakull resides at Cheratullum, situated S. 62, E. 5 miles from the capital. He has a palace here, surrounded by the houses of his adherents. At Runjamungalum, N. W. of the above palace, is an extensive house, the property of a Nair of high rank. Amidst an immense population of the caste, Mandoy or Pyangaddy S. 53, E. 7 miles is a Moplah village of some importance situated on the right bank of a fine river; it is a place of trade, and boats of a large size come up to it. Here is a small redoubt, also a bungalow for the reception of travellers, and in the middle of the village a handsome mosque of several stories, its cupola covered with copper. Yettacolum, a small village lying a mile S. of Mount Dhelli or Yey Mullay, where the sea forms a small and safe bay for craft, is inhabitated by Moplah merchants who supply Cannanore and Tellicherry with firewood, also fish. On a small hill stretching into the sea is a redoubt strongly built, but overrun with wood; according to the information derived, it was built many years ago, perhaps by the Dutch to protect their trade on this part of the coast. There is a very insignificant mosque almost on the summit of Mount Dhelli, frequented every Tuesday by numbers of Moplahs; it is infested by numerous monkies. Yirrakoor, a large Moplah town with some mosques, and lying S. E. 25½ miles from Kavoy, is a place of note, being on the high road from the coast leading through the Poodeacherrum or Huggel Pass towards Koorg and Mysore. It is on the right bank of the Billipatam river, to which it is navigable for small boats at high tides. During the rains a great deal of large timber and bamboos in rafts are floated down to Billipatam and other places for sale, and for the construction of small craft. Large quantities of salt from Tellicherry are carried up the different passes to Koorg and Mysore by Brinjaries, who have large herds of cattle to convey this indispensable article, and in return bring down rice, dry grain, and other produce above the ghauts. Pyanur, situated N. 22, E. 5¼ miles from Yirrakoor is an extensive Nair village, where

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there is a pagoda of some celebrity, daily ceremonies are performed, and once a year a festival and fair takes place, when people from the surrounding country, as well as merchants from Mysore and Koorg, resort to it with cloth, blankets, and various other manufactures. Viatur, on the left of the road to the Heygul Pass is of some note from a temple now however in a state of decay; the copper covering was taken away during Tippoo's invasion; it lies N. 61, E. 8¼ miles from Yerrakoor. At Koyperumbu S. E. 1½ miles off the above pagoda, is a custom-house or chowkey, were customs are levied on all articles from above the ghauts. N. N. E. 5½ miles from the above, is another establishment of the like nature by the Koorg rajah, also a bungalow for the reception of travellers. This road is now seldom frequented. These buildings are on the right bank of a branch of the Yerrakoor river, at the foot of the ghaut, and are the limit between Malabar and Koorg. Culliand, a Nair village, is romantically situated in the centre of a high table-land, the high road passes through it; there is a pagoda on the left, and a street occupied by weavers on the right. Sirrucundapoorum, a Moplah bazar with a mosque, has a dense population in its vicinity; it is on the right bank of the northern arm of the Billipatam or Yerrakoor river; to which place the river is navigable for small boats. These bazars or storehouses contain the produce of the hill cultivation, which is here collected and sent down by water to the towns on the sea coast.

Neither dams nor canals of irrigation are to be met with; there is however one canal of communication between the river of Pyangaddy, and a branch of another which runs N. and joins the Kavoy immediately to the S. of the town of that name. It is three miles in length, cut through low paddy ground; it was executed at the expense of the Beebee of Cannanore: the object, it would appear, was to have a safe inland navigation from Neleshuer in Canara to Kukkad N. E. 2 miles of Cannanore; it is now very shallow and impassable during the dry season. Two small rivers, which have their sources in the low hills about Curincotah and Alaperumbu, flow towards Kavoy, and form various branches of estuaries to the eastward of the above place; these joined by several other minor streams discharge themselves into the sea at Kavoy, and also by a bar one mile N. E. off the village of Yettacolum, forming an island of about six miles in length around the mountain of Yey Mullay or Mount Dhelli. Towards the N. and partly defining the limit, is a branch of the Neleshuer river, which has its source in the Koorg mountains, with high banks, and runs principally through forest. The Pyangaddy

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river rising also from the mountains flows by Dyroth, Moindoah, Thuddendu to Cuppurapudda, a small street of Moplah shops and mosques, to which it is navigable for small craft; from thence it runs W. through hills and hamlets and supari groves scattered on its banks to Hoopum, another small bazar situated ¾ of a mile to the N. W. of the Tulliperumbu pagoda; here it becomes wide and deep with many windings, forming several islands, it reaches Pyangaddy; from thence its course is almost S. in a parallel to the sea; it joins the Billipatam river and they are discharged into the sea by a wide bar at the Iyacode. The Billipatam river has several sources in the chain of ghauts on the borders of Koorg. The principal branch however rises in that province, it rushes down the ghauts in cataracts, and flowing through a wild tract enters the populated country at Curmeth and thence by Perumperumbu. To the eastward of that place it is joined by another large stream, which has its sources in the mountains S. W. of Monatana in the Kotium division; it then runs with several windings by Kuloor, Perumanoor, Nedduvuttom, to the town of Verrakoor, at which place it becomes navigable for small craft; it again proceeds W. and at Munpurun Erovapoy it is joined by another branch rising also in the ghauts which flows by Viatur, S. one mile from the pagoda of Pyaur Kanjatary, from thence by several serpentine windings to Sirrucundapoorum, a large Moplah bazar and mosque, to which place it is navigable for small boats. At the above confluence, the river becomes wide with a sandy bed, forming islands, flows to the N. of Kumbill, a bazar, and thence to Billipatam. The whole of these rivers have bold banks, and in their course through the interior very rocky, passing through the populated tracts: the banks are very picturesque, lined with supari and other plantations, with little of the cocoanut, until reaching the open country.

With the exception of the flat country which does not extend above 10 miles parallel to the coast, the whole of this division may be considered hilly and mountainous, interspered with rich cultivated valleys. The N. E. portion is remarkable for its features, hills rising abruptly from the valleys, from extensive table-lands, the surface of them being rocky; the forest is consequently thin, and much of a perfect plain. To the eastward the hills become somewhat higher, running in ridges towards the ghauts, and generally covered with high wood which yield much timber. The slopes are in many parts laid open for the Modum cultivation, which of late years has been greatly extended among the mountains

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to the N. and N. E. of Pyaur pagoda. The most conspicuous hill, though not 800 feet above the level of the sea, is Yey Mullay or Mount Dhelli, serving as a landmark to seamen: the higher mountains in the interior forming one mass, have conspicuous peaks, among which may be noted Cotah-cullachy, Bydut and Koonatoor hills.

The high road to Mangalore enters this district at Pyangaddy, and proceeds by Yeddanaud where a small river is crossed, and from thence through wet cultivation, crosses the island of Kavoy to the sea beach, along which it proceeds to the Hoss Droog in Canara. This road being rather circuitous, the mail runs from Pyangaddy towards Pullacode at the foot of Mount Dhelli, generally over wet cultivation, and joins the main road a short way to the E. of Kavoy. The high military road from Cannanore to Mysore by the Heggul or Poodiachurrum Pass, enters the district at Yerrakoor, and runs eastward by Cullianad, Pirrianuttum, Poyapurumbu, and from thence N. N. E. across a range of hills and much forest to Karatay, where there is a custom-house and a small bungalow for the accommodation of travellers. This is a very indifferent road from the rough nature of the country it passes over, and though great pains have been taken to improve it, will not admit of wheel carriages: it is much frequented by Brinjary merchants, who carry large quantities of salt on laden cattle from Cannanore, in exchange for grain and other articles from Mysore, and Koorg. There is a tolerable road from Cannanore leading to Tullipurumbu, and from thence different roads branch off towards Kavoy, Vullorah, Nerumbu and Cuppuva Puddavu, and from thence to the Ponum cultivation on the slope of the hills in the interior, but these can be considered only as foot-paths. There are roads leading from Sirracundapoorum and Yerrakoor to Pyahoor, and from thence over a very wild tract across hills and forests up to the Codeachurrum Pass in Koorg; another road strikes off from Purriacattom N.; it runs through a wild tract and enters Kavoy by the Jarracudda Kachurrum Pass, very little frequented. Besides these many foot-paths cross the country in every direction.

The surface of a great portion of the country is covered over with laterite or pudding stone, from whence iron may be extracted: the higher hills in the interior are composed of granite.

Some coarse cloths are manufactured at a few places in the interior, and coir on the coast; also brown sugar or jaggry, as well as country arrack from cocoanut toddy, and oil from the kernel, dried nuts or coprah for exportation.

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The soil along the coast and some distance inland is of a light sandy nature, that in the cultivated valleys in the interior is rich and of a brown colour, inclining in some parts to black; on the elevated tracts and table-lands it is red, but very much intermixed with the pudding stone; on the slope of the hills and where Ponum cultivation abounds, it is generally black from the remains of decayed leaves and trees. The productions are rice of various descriptions. Cocoanuts in great luxuriance along the coast and rivers, and from some distance in the interior; areka or supari in great abundance more especially in the interior; also pepper, but not in such quantities as in the southern district. From the hill cultivation a coarse rice is obtained, also several dry grains and pulses. Honey and bees' wax from the forests and mountains collected by individuals who rent the forests. Salt and tobacco are not productions of the country: the former is received from Bombay and other places under that presidency and lodged in store in golahs at Tellicherry, Cannanore, &c. Tobacco is obtained by contract from Coimbatoor, and both these articles retailed to merchants for the consumption of the inhabitants.

According to a census taken in 1827 by orders of the Collector, the population amounted to 46,340, giving 88 individuals to the square mile. The bulk of the population is confined to within 12 miles of the coast; the country in the interior being woody and mountainous is very thinly populated: the whole consists of a variety of castes, as Nairs, Teers, Moplahs; as also of lower classes, as Churmers, Polians, mostly slaves, the latter are confined to the hilly tracts, and employed in cutting down wood, and clearing the forests for hill cultivation.

The black cattle of the country is a very diminutive animal, and not in any great abundance, some of the males are yoked to the plough, as also the buffalo, a useful animal, mostly confined to the lower country. There are no sheep. A few goats are to be seen in the vicinity of the Moplah habitations. The wild species are the elephant, byson, elk, deer, wild hog, also a variety of tigers, and leopards; the smaller species is often seen in the vicinity of places not far from the sea. In the woods of Mount Dhelli, many of the above are found, and the Nairs and Moplahs often amuse themselves in hunting them, especially the elk.

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Description of the Cheracul Talook of North Malabar.

The district or Talook of Cheracul is bounded on the N. by that of Kavoy; on the S. and E. by Irivinad of the Kotayem Talook and the estate of Anjarankandy; and to the S. W. by the sea coast for 16 miles, and contains a superficial area of 130 square miles, 35 square miles occupied by paddy or rice lands, 7 by water, 60 by uplands, 4½ by houses, and the remainder by low hills and woodlands. In figure an irregular trapezium, its whole perimeter measures 60 miles; the amount of the population according to the census in 1827 gives 290 individuals to the square mile, but of unequal density, being greater on the sea coast and rivers, quitting which they are more thinly strewed, and confined to the narrow cultivated valleys intersecting the country.

Cheracul is divided into nine subdivisions or Hobellies; these are again subdivided into 19 umshums containing 92 deshums or estates. No regular villages are observed excepting a few ungadies or streets of Moplah bazars, and these mostly confined to the coast. The houses are generally strewed about the sides of rivers and cultivated valleys in the interior.

The deshums or villages in this district are remarkable for their numbers, extensive cultivation and density of inhabitants; but scarcely any thing in the form of towns are to be observed. The following are places of some note. Cannanore, the head-quarters of the troops in Malabar, situated on the coast, is famous for its triangular fort built on a rocky point stretching into the sea, which washes it on two sides, and across the Bay to the S. E. is the straggling town of Cannanore, with a street of bazars intersected by narrow lanes, occupied mostly by a dense population of Moplah merchants. The Beebee has a palace here, and some large warehouses along the coast. A few mosques are scattered about the town, two of them of some note. The cantonment is situated to the N. W. of the fort, and occupies a large space; the principal buildings here are the regimental barracks, hospitals, &c. The church, a modern building, is situated N. of the fort on an elevated plain; there is also here a Roman Catholic church at the back of the cantonment bazar. The roads about it afford pleasant drives, and are kept in good order. Billipatam situated N. N. W. 5 miles of Cannanore, is a small trading town, composed of a street of shops and large houses. It is situated on the left bank of a magnificent river which discharges itself in the sea four miles to the S. W. of it. The banks

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are fringed with cocoanut and other trees. It would appear that the Dutch had a factory here, the remains of a strong fortification and substantial buildings indicate its scite. S. E. of this town is a famous Hindu temple, held in great veneration by the inhabitants around. At Cheracul, one mile S. E. of the former, is the Talook cutcherry. This place is remarkable as being the residence of the Rajah of the same name, who has a Colagum or palace on the south side of a reservoir of fresh water; half a mile on the west of the high road a street is formed by weavers and other castes, and on a height S. W. of the palace are to be seen the remains of a redoubt. Kunnadipurumbu N. E. 3 miles. Kanjerancode E. 6 miles of Cheracul, are a few weavers' and Cholears' houses formed in streets or bazars. In the vicinity of the former is a temple of note on a plain height, to which the surrounding inhabitants pay their devotions. Opposite to it on the west is the island Pambuturity. Valeth was once a place of note, and celebrated for an extensive pagoda, now fast falling to decay: to the E. of it is the scite of a cutcherry, and during the turbulent state of the country some years ago served as a rendezvous for troops stationed at it. Kumbilla, also in the Kunnadipurumbu subdivision, consists of a street of Moplah merchants, pleasantly situated at an arm of the Billipatam river. The houses of all the other deshums are scattered on the margin of the fields, fringed with cocoanut, areka, and other valuable trees. The heights separating the low cultivated valleys, are some plain, but most of them overrun with wood of various kinds.

Rivers in Malabar seldom assume one general name throughout, but are called after the most conspicuous places on their banks; for instance, the Billipatam river, which flows by Eroocur above is called after the name of that place. This river enters the district about $\frac{3}{4}$ of a mile S. E. of Pananoor, and in its course downward W. and N. W. for $5\frac{1}{4}$ miles forms the limit with Kavoy; it then flows W. $\frac{1}{2}$ mile, winds S. 3 miles, and 5 miles S. W. by W., falls in the sea at Jyacode, increasing in width from 200 to 800 yards with many islands: another branch joins $1\frac{3}{4}$ miles N. E. and by E. of Billipatam and by an irriguous course runs S. to Kakkad 3 miles, and N. E. of Cannanore, where provisions and fuel are brought down for the consumption of the cantonment. A short way S. of the above place, another branch extends towards Moondairy, formed by the overplus waters from the extensive fields of Kutiafoor and Koodaly. The Pyangaddy river in its irriguous

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course E. S. E. forms the limit in common with Kavoy for 6½ miles, and from the above place runs S. a mile. Here an artificial canal is cut from it, communicates with a branch of Kavoy river; from the above spot it runs S. S. E. in breadth about half a mile, and forming a few islands, joins the Billipatam river opposite to Ayacode, where it is divided from the sea by a narrow spot of sand sprinkled with some cocoanut topes and huts of Moplahs and fishermen. A small stream which takes its rise about Chalara and Maucherry, falls into the sea about 1½ miles S. E. of Cannanore, there is a bridge across it about 3 miles E. of the cantonment. There are several natural streams intersecting the country in the interior, and are of infinite use in irrigating the rice fields, but the extensive fields in the N. W. between the Billipatam and Pyangaddy rivers depend on the rains during the monsoon. In dry weather the most part of this surface is cultivated with sesamum, and other dry grain, and sometimes a coarse paddy: small tanks and reservoirs are not uncommon in various parts, but no extensive lake or large sheet of fresh water exists.

With the exception of the flat rice lands in the N. W. this district is undulating; the valleys between the ridges, some of which are extensive, are all cultivated. Iyapencoon towards the E. is an eminence about 400 feet above the level of the sea; the ridges for a few miles parallel to the sea are plain, some fringed with brushwood: to eastward they are covered with wood, but no useful timber is obtained.

This district is intersected by several large roads leading to Cannanore. The one to Mangalore passes on high ground, and descends to Billipatam, the river is here crossed by a jungar (a couple of boats joined by a platform); from thence over rice fields, proceeds to and crosses the river to Pyangaddy, (a Moplah town dependant on Kavoy.) There are trees on both sides of this road. The high road to the eastward constructed some years ago by a battalion of pioneers, proceeds through Chalye, and crossing three small bridges in marshy ground passes on to the Durmapatam river. Here is a wooden bridge about 250 yards in length; this river forms the limit between Cheracul and the Kotiole Talook, and is 9 miles from Cannanore. The road to Tellicherry strikes off from the former on crossing a small bridge, passes over heights, descends into fields, and over a new bridge lately erected, proceeds and crosses the Durmapatam river. These roads will admit of wheel-carriages. The high road towards the Pudiacharrum Pass into Koorg, which was

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marched by the Bombay army proceeding to the siege of Seringapatam, is a very indifferent one, and no pains of late have been taken to repair it; it leads over very undulating ground, the acclivities and declivities at intervals are so steep, as not to admit of wheel carriages. Besides the above, the whole country is intersected by foot-paths.

Laterite is met with all over the district, the stones quarried in the shape of bricks are invariably used in building throughout Malabar.

Some coarse cloths are manufactured at a few places in the interior. Kyaar ropes from the cocoanut, oil from the kernel, and arrack from the toddy in great quantities.

In the vicinity of the coast, the soil is a white sand, but in the interior both the uplands and cultivated valleys is red soil mixed with gravel. The rice grounds yield from two to three crops, the produce is equal to the consumption. The chief produce is cocoanut in great abundance and very luxuriant, especially along the coast and rivers; it constitutes a main article of export, as also kyaar, oil and jaggry; pepper and supari produced in the interior are articles of export. The coast abounds with a variety of fish, affording employment to a very large population of Moplahs and Muckwars; a large portion is salted, and disposed of in the interior: salt and tobacco, as already mentioned, are monopolies.

By the census of 1827, it would appear that the aggregate population amounted to 38,509 souls, consisting of a variety of castes, as Brahmins, Nairs, Moplahs, Teers, and Chermers. The Namboory or high-caste Brahmins are but few compared with the Nairs and Moplahs: the latter are Mahomedans, and possess much landed property throughout this tract; they are both cultivators and merchants. They are in greatest numbers along the coast, but have bazars or angadies also in the interior, and in the vicinity of rivers for the reception of the produce of the hills, which is sent to the coast at convenient seasons. The Nair population may be estimated at one-third of the whole, they are principally cultivators, and confine themselves to the interior, where they superintend the cultivation of their respective estates: the labor and drudgery is performed by the Chermers or Polians, the prædial slaves of the land.

The cattle throughout Malabar, as well as in this district, are of a very diminutive kind: a few buffaloes and goats; sheep are brought from Coimbatoor and Mysore for the consumption of the troops. The wild animals are hogs, spotted deer, the hare and various other small quadrupeds.

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Description of the Kotium Talook.

The Kotiote Talook including Tellicherry, Irrivinad and the estate of Anjerakandy, is bounded by Cherakul to the N. W., by Kuvoy to the N., to the E. by Wynaud, to the S. by Kartanad, and W. for 18 miles by the sea coast. Its perimeter is 80 miles and it contains a superficial area of 487½ square miles: of this 54 square miles are occupied by rice lands, 111 by heights fringed with jungle, the remainder by wood, hills and mountains. The population according to the census of 1827, gives nearly 170 individuals to the square mile. It is most dense towards the coast, the interior having scarcely recovered the effects of the desultory warfare carried on some years ago by the British against the chieftain of this district.

Kotiote is divided into 22 hobellies or sub-divisions, and these again sub-divided into 34 umshums, and contains 269 deshums or estates, but none of them compact, the houses being scattered on the skirts of the paddy cultivation under the shade of groves composed of the cocoanut, suparee, jack and other productive trees.

Tellicherry, one of the most considerable places in this division, and the oldest settlement on this coast, is a place of considerable importance as a maritime town. The citadel or castle stands to the N. of the town, the old presidency in it is now converted into the magistrate's and sub-collector's offices: the lower part is used as a jail. On the N. W. bastion is the flag and signal staff. There are no other buildings within of note. The outer part or European town occupies a considerable space to the S. E. and is now inhabited mostly by Portuguese families. It is a place of little strength, but sufficient to keep the nairs and petty rajas in check: the walls are in a state of decay. The town lies to the south, the principal street (the bazar) runs parallel to the coast, is wide and a mile in length. A few of the houses are built on the European plan. The smaller streets are narrow and filthy, and will scarcely admit of any kind of conveyance. The whole town including the suburbs occupies about 4 square miles. There are some tolerable mosques in the S. E. portion occupied by the higher classes. Some pagodas are to be seen, but few of much note or celebrity. The town was once surrounded by a strong mud wall on the right of the road leading to Cannanore, and three quarters of a mile from the castle is the court-house, for the circuit judges, as well as several garden houses; two of them are pleasantly situated in the Island of Durmapatam, distant two and three miles from the castle. The drives are very good, some pains and labor are required to keep them in order. To the west of

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the castle, and fronting the sea, is a modern Protestant church and burying ground, adjoining it only divided by a wall is a Roman Catholic church, the former was built by subscription, and though of very good materials it was found necessary to prop it up by buttresses a few years after it was finished. There is no officiating clergyman, but the invalids and native Protestants have divine service performed on Sundays. At Kuddawor, 4½ miles N. E. of Tellicherry, and south of the high road is a palace, pagoda and square tank, faced with stone, the former was built by the Pychee Raja, it was considered by the natives to be superb: much pains have been bestowed in finishing the upper apartments, but on the whole it is a poor edifice; it is now used as a cutcherry. The population in its vicinity consists of nairs principally. Kotium, also called Kotangady from a moplah bazar and mosques to the S. is another palace, belonging to the Pychee Raja, at present in a neglected state; to the east of it is a sheet of deep water about half a mile round, it lies N. E. 6½ miles of Tellicherry. Tullaperumbu, on the high road to the Peria Pass, lies one mile E. of Kotium; there is a small redoubt with four bastions; on two of them bungalows are built for the accommodation of travellers; to the S. is a street of bazars kept mostly by herdsmen and natives of the eastern coast. The roads from Cannanore and Tellicherry meet at this post. Pychee palace lies 12 miles N. N. E. of Tellicherry on the northern skirts of extensive paddy cultivation: it has a trench around the whole in a decayed state. There is also a pagoda of little note: to the S. E. of it half a mile is a moplah bazar, consisting of a double row of houses. The bulk of the inhabitants in the surrounding deshums are nairs. Canote on the high road N. E. 13¼ miles from Tellicherry, was a military post; here is a small redoubt on a hill in ruins; to the E. is a double row of houses and a good bungalow for travellers; on the east of it is a small river, and an elegant stone bridge thrown over it by a battalion of pioneers employed in Wynaud in 1822-23. Kodally, situated N. N. W. 12 miles of Tellicherry consists of 3 or 4 different rows of moplah bazars with a mosque; it is on the high road from Cannanore to the Pudiacherrum Pass; the inhabitants in the surrounding villages principally naire, some moplahs, churmers and polians. The estate of Anjerakandy lies N. N. E. 8¾ miles of Tellicherry; it was the property of the late Murdock Brown, Esq. who has a splendid mansion on the left bank of the Durmapatam river, which is navigable from thence to the sea. The extent of this estate is 5¾ square miles, one mile of which is occupied by paddy cultivation, another by

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gardens, the remainder undulating ground overrun with wood producing pepper and cassia. Paunoor 6¾ miles E. and Perimkulatoor S. E. 7 miles are populous villages, inhabited by moplahs, many of them opulent merchants. At the former are the ruins of a fort; the latter lies on the right bank of an arm of the Mahee river. North of Mahee in the Kotium Talook remains of redoubts are seen on the tops of the low plain hills, forming a chain in the Korungate sub-division, built it would seem by the French, who lay a claim to the whole within these fortifications, and some of the lands even beyond, but this claim it would appear is unfounded. Totycolum one mile N. N. W. of Canote is a pagoda of celebrity, where an annual festival takes place; about the pagoda there is a dense population principally of nairs and some brahmins who are averse to the lower classes approaching their sacred temple. Monatana N. E. 8¼ miles from Canote, was once a military post; there is a redoubt on the summit of a low hill in good order, but overrun with wood; the inhabitants in the neighbourhood principally nairs: several roads from the westward communicate here. Chavucherry 4 miles N. N. E. of Pychee has a moplah bazar, and a palace to the north of it, the inhabitants generally being nairs. Shevapuram E. 2½ miles of Pychee is another range of bazars kept by moplahs. Four miles E. N. E. of it is Molencoon, with a dense population of nairs and many Illums or Numbury estates. Coteur pagoda is a temple of great celebrity; has an annual festival in April, and though sequestered in a wild woody tract, the devotees are very numerous; it is situated E. S. E. 8 miles from Monatana, the nearest inhabited place to it. The road from Monatana to Wynaud passes it.

The Mahee river to the south is described in the account of Kartanad; the principal river in this tract is the Durmapatam, which has its two principal sources in the mountains forming the ghauts immediately to the south of the Peria Pass and the Kakany range, the southern branch meandering through forest passes to the east of Kunooth with several devious windings, and in a course of 15 miles joins the northern branch. N. W. 2½ miles from the above named place, the latter passes by Komeri, Kotayatta, Alacheri, and Idumba, to the above mentioned junction, a distance of 12 miles. The main river now flows W. with several large windings, passes Nervaily, Vaingaud, Anjerakandy; on its right bank 15 miles higher it becomes navigable to the sea for boats of a large size, it now proceeds S. 5 miles to the Mampuram bridge, winding largely; then W. 3½ miles and N. one mile of Mapullancad, divides itself into two

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branches and forms the island of Durmapatam, in circumference nine miles, and finally discharges itself into the sea by two bars. In its course it receives numerous streams from the cultivated valleys. Much timber is floated down from the slopes of the mountains, which however produce very little teak; a small river rising in the hills east of the Cherwancherry deshum, flows S. W. and W. 16 miles, and N. W. 1½ miles of Tellicherry runs into the sea. In its course it receives several large streams formed by extensive cultivated valleys on either bank. There are two large bridges thrown over it, one a modern and substantial one on the Peria road, the other on the N. W. towards Cannanore very near the bar; it is of timber in a very decayed state. A branch forming the Yerracoor river has its principal sources in the Cotiar valley, and the mountains to the north; also a branch rising in the small valleys to the N. and S. of the Peria Pass: this latter flows W. of Neddibrinjal, where a bridge is thrown across, runs N. N. W.— W. a mile of Monatana to its junction with the principal branch, S. half a mile of Palah on the left bank after a winding course of 12 miles from its source; the principal branch runs N., then N. W., joins the Yerracoor river rising in Koorg E. half a mile of the Perumperumbu deshum: (for its farther course W. see descriptions of Kotium and Cherakul Talooks.) Much teak and other timber as well as bamboos are floated down the different branches during the periodical rains.

The line of ghauts to the eastward, the crest of which forms the boundary dividing this Talook from Koorg and Bunaud, are lofty, some of the Peaks about 4000 feet above the level of the sea; the valleys formed by the slopes are extensive and covered with dense forests. The Kakany mountain is a lofty ridge stretching W. from the ghauts, the slopes from it approaching within 10 miles of the coast due E. of Tellicherry. Perlymullay situated centrically, a long ridge about 6 miles in length E. and W. unconnected with the ghauts; it is covered with wood and bamboos to the summit. In the N. E. portion several table-lands covered with wood, apparently flat, rise abruptly from the cultivated valleys; the country eight miles in a parallel with the coast is composed of open ridges; between the cultivated valleys a few of the eminences are wooded; there is a very little flat land in the district beyond a belt along the east about Tellicherry and the cultivated valleys, the whole of the eastern portion is one dense wood with a few cultivated spots to the foot of the ghauts. In the small island of Durmapatam the only flat ground is that under wet cultivation and marsh, the rest undulating ground

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falling in cliffs towards the sea, opposite to it is a rocky island with some wood surrounded by rocks. To the W. of Tellicherry half a mile is a ridge of rocks which affords good shelter for craft during the S. W. monsoon.

The road from Cannanore runs over heights, descends to a bridge across a small stream in fields E. S. E. two and half miles; the main road on heights, cultivation on the left, descends and crosses an extensive field and bridge to Chalaye E. S. E. two and half miles; it then winds over heights, crossing fields at intervals to Mauvillay, two and half miles; three bridges are thrown over a large nullah in fields and marshy ground, then over uneven ground to the Durmapatam river, over which a strong wooden bridge 250 yards in length is thrown, where a toll is levied, which tends to defray the repairs required from time to time. The road now winds east over wooded heights, crossing cultivation at intervals, leaves Kotiar and a large fresh water reservoir on the right to Kootpurumbu; four and half miles from thence it winds a short way to the N., then E. through wood, crosses a bridge midway to Canote bazar and bungalow eight miles. A substantial bridge is thrown across the river at this place, the road very winding and mostly through wood, runs E. N. E. and passes another bridge over a mountain stream four and half miles; its course E. through wood, ascending and descending to Neddibrinjal, a bazar and small bungalow; at the bottom of the Peria Pass, four miles a bridge is thrown over the stream to the W. 300 yards from the bazar. The ascent of the pass here commences, winds gradually to the summit three miles, high ridge on the right, deep hollow on the left. The road from Tellicherry to Kootpurumbu runs generally over heights; N. E. eight and half miles. Midway on the right is Kuddawor palace and pagoda, both sides of the road is a perfect garden. One and half miles from Tellicherry it crosses a new bridge thrown over the eastern branch of the Durmapatam river. The road to Tellicherry strikes off the main road a short distance S. E. of the Chuviel bridge, ascends, runs over flat heights, descends, crosses a nullah by a bridge to the Kooticuggum deshum, proceeds through extensive fields, crosses the large branch of the Durmapatam river, winds across the island, passes over two more bridges, then in fields gently descends, and passes through Tellicherry to Mylan redoubt on the left, the sea to the right; it then runs E. winding over heights and uneven ground, ascending and descending to the Moondul bungalow on the right bank of the Mahee river, distance from Cannanore to Tellicherry fourteen miles, and from

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the latter place to the bungalow at Moondul nine miles. On passing the Milon redoubt, a road strikes off to the right, passes over fields and low hills, descends and crosses the river to Mahee four and half miles from Tellicherry. The high road from Cannanore towards the Pudiacherrum Pass enters the district at Kodally, from thence it goes E. and N. E. very winding and ascending and descending, runs through much wood, a steep descent; passes the river Yerracoor (eight miles from Kodally) in the Kuvoy talook. Besides the above roads, the district is traversed in several directions by roads made for military purposes, from Kootpurumbu a road goes S. S. E. to Paunoor, and from it two roads strike, one E. S. E. to Parukuddavu in Kartanad, and another S. communicates with Perimkulatoor, and joins the high road S. W. of Beloycoon hill. From Kunooth and Kootpurumbu roads lead to Pychee, Chavucherry, Shevapuram, Molencoon, and communicate with Monatana; from the latter place a road E. S. E. enters the Coteur valley and up the pass of the same name, a very difficult one and only frequented by the hill people, joins the high road to Manantody.

Iron ore is to be obtained in some portions of the district, but none is manufactured; cloth is made at several of the desums, none of a superior quality, kyar, arrack, jaggry, oil, from the coppra or dried nut, sessamum and castor.

The soil in some parts towards the coast is brown and sandy; on the rising grounds in the interior it is rich and gravelly, the cultivated valleys a brown loam, towards the mountains and in the forests it is rich and black. The productions are rice of different kinds, cocoanuts, suparee or the areka nut, pepper in great quantities, there being no less than seven and half lacs of vines in this division. Dry grains of various kinds, also sessamum or rape seed, which is not taxed as the various productions above enumerated.

The population in the town and environs on the coast about Tellicherry is dense, but becomes less on proceeding to the eastward. The population of the whole district appears by the census of 1827 to amount to 84,639: this would give 170 individuals to the square mile.

Description of the Kartanad Talook.

Kartanad, a very fertile district, is bounded on the north by the Tellicherry and Kotium talooks, the Moondal or Mahé river forms the limit to one of its sources in the Kakany mountains, a lofty range stretching from the ghauts, then along the latter to Banasore Peak,

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which divides it from Wynaud; from thence it follows one of the sources of the Kotiady river, down the mountains, to the confluence of several streams which form a large river E. of the old redoubt and bazars at Kotiady; then along the main river, meandering till it falls into the sea N. W. three quarters of a mile from Kotakul Angady; in this space dividing it from the Kurumnad talook to the S., and to the W. by the coast for twelve miles, its whole perimeter measures seventy-two square miles. The superficial area of 193½ square miles, 36½ of which is occupied by rice fields; a large portion of the upland undulating country in a parallel to the coast for eight miles is almost covered with luxuriant groves of cocoanut; to the eastward it is overrun with forest to the base of the mountains, but in this wild tract are to be seen a few sequestered glens of paddy cultivation and farm houses. According to the census of 1827, it would give 350 inhabitants to the square mile, but the population is more dense in the western portion, and along the sea coast.

Kartanad is divided into eleven sub-divisions or hobellies; these again are sub-divided into thirty-one umshums, containing one hundred and forty-six deshums or estates, the houses of which are scattered along the sides of the rice cultivation and do not form any compact villages.

The only places of note in this division are Mahé, belonging to the French, Wuddakurray, now the capital, and Kuthiaporum, in the interior, and at present the residence of the raja of this country. Besides the above there are a few bazars on the different roads in the interior not worthy of notice. Mahé was once a place of importance, but the fortifications having been demolished, the town is now in a state of decay. The French territory is confined to about half a square mile. To prevent smuggling there are outposts with peons within hail of each other. The French continue to have a Governor and other functionaries under him with a few peons, but no military force. There is a large Roman Catholic church and a few substantial dwelling-houses and public buildings for commercial purposes lining the river, a large portion of them are now in a state of decay. The place next in importance is Wuddakurray, a large straggling moplah town, with several irregular streets or lanes, many mosques are scattered about; some though large are of no note. The principal road leads to the traveller's bungalow, an upper-roomed one, half a mile to the E., on an elevated spot; the cutcherry is also held in it. To the S. of the bungalow there is a strong built square fort with bastions at each

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corner; the interior is now converted into a garden; it is a place of trade and many small craft ride at anchor in the roads. On the beach are several substantial storehouses for grain, cocoanut and other produce: these belong chiefly to private individuals. There is a small custom-house and a few peons for collecting the customs on the exports and imports. Kuthiaporum N. E. eight and a half miles from the above place is noted for two bungalows situated on low hills. On the declivity to the E. is a fortified palace belonging to the raja, and to the S. and E. a few large houses belonging to the same family on the skirts of the field. About a mile to the westward are two streets of bazars or store-houses called Madapurum kept by moplahs, the surrounding country is in a high state of cultivation, and the heights covered with numerous cocoanut trees. Six miles E. S. E. of Kuthiaporum is Kotiady, once a strong military post, but now in ruins; a few bazars only remain, the river to the E. is navigable from the sea, in its windings a distance of twenty miles.

The two rivers in this portion being influenced by the tides, no dams or canals of any kind are to be seen; the valleys of cultivation are all irrigated by streams running through them, but a large portion of the cultivated land depends chiefly for their supply on the periodical rains; several estuaries are formed on either side of the Kotakul or Kotiady river during the rains; from the river overflowing its banks the inundations on these occasions pass over large tracts of cultivation and gardens, doing much mischief, should the waters not subside for some time; estuaries or inland lakes contain water throughout the year, and all of these during the hot months are brackish, being affected by the tide which rises to Yeddaroor and Ryput Angady in the Kurumbanad side of the river. It has already been stated that the above river is navigable to Kotiady and is thus far affected by the tides, but small canoes go into Coonichary; rafts of timber and bamboos are floated down from the foot of the ghauts below Banasoor Peak. The Mahé or Moondal river is navigable up to Perimkulatoor, a moplah bazar on the right bank for a distance of nine miles, its greatest width at Mahé being about 250 yards, and increasing in its irriguous course with bold banks. Rafts of timber and bamboos are floated down from the foot of the ghauts from the Billiote valley and Kakany mountains on the north.

The mountains on the N. E. portion are sublime, rising to about 6,000 feet above the level of the sea, the principal peaks are Bana-

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soor, Nadavarum, Kuniat, and Kokany; the ridges from these extend from three to four miles, and the whole covered with forests, yielding cardamoms in sequestered situations; the lower ridges running between the cultivated valleys are here and there conspicuous, and many of them covered with wood; between Waddakarra and Mahé along the coast low hills rise, which are cut in deep terraces for the cultivation of cocoanut, and various other plants, which thrive very well.

This district is intersected by a great many roads, originally made for military purposes. Many of these are lined with avenues of trees, but none of them will admit of wheel-carriages, with the exception of the high road from Tellicherry to Callicut, which enters the district on crossing the Moondal ferry. It runs almost parallel to the coast, but some distance from it, and passes by Waddakarra and crosses the Cotacul river, and enters the Karumbanaud talook. Travellers generally go through Mahé, it being more direct, but all military detachments go the upper road to avoid that place, it being a French settlement. The next road of some importance as a mercantile one, proceeds from Waddakarra, viâ Kootipurum to Cootiaddy, and from thence through a wild country up the steep Pass to Corote Angady in Wynaud; this Pass will admit of laden cattle, but with difficulty. Another road leads N. E. from Kootipurum viâ Billiote, up the pass of the same name, through a wild wooded valley, but will only admit of loaded foot passengers: this road on ascending the ghauts procceds to Koonote Angady in Wynaud. There are also tolerable roads to Perin, Kulatoor and Prakudoon from Kootipurum, now frequented only by merchants, and the inhabitants of the country.

Iron ore is obtained in quantities in various portions of this district, there being no less than 40 smelting places in it. Cloths, such as are worn by the inhabitants are made at several deshums; kyar is manufactured from the husk of the cocoanut, oil from the copra or dried nut, much of which is exported, and jaggry, a coarse brown sugar, is made from the toddy extracted from the cocoanut, and sago palm: the latter grows spontaneously in the interior.

By the census taken in 1827, it would appear that the aggregate population amounted to 59,397 of all ranks and denominations, including *Polians*, *Churmurs* or Prœdial slaves. This gives about 304 to the square mile, but the largest portion is confined to the sea coast, rivers, and cultivated valleys; towards the mountains the population becomes very thin, where only farm houses are seen, with

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a few huts occupied by the slaves, the cultivators of the soil, and these in distant and remote situations.

The black cattle throughout the country are of a very diminutive race. Buffaloes are generally yoked to the plough; sheep do not thrive, but are driven in herds from Coimbatoor. Goats, a few are reared in the country, but these are generally confined to the coast, and are the property of moplahs. The wild animals are elephants, byson, elk, deer, and several species of tigers, as also a variety of smaller quadrupeds: of these the former commit depredations on the rice fields and farms, situated far in the interior; rewards are given for destroying them as well as tigers, but the natives prefer taking the former in pits dug on the sides of the paths and roads, in the vicinity of their haunts.

Description of the Wynaud Talook.

Wynaud or Byenaud, one of the largest divisions of Malabar, situated above the ghauts, the crest of which to the W. and S. forms its limits, and divides it from the Talooks of Kotiote, Kartanaud, Karumbanaud, and Erranaud for 120 miles; on the north it is bounded by the Province of Koorg, on the E. by that of Mysore, and to the S. E. from Coimbatoor by the Bukkary river, which divides the elevated table-land of the Neelgherries into two portions; its perimeter measures 226 miles; its length from N. W. to S. E. 60 miles in breadth, about the centre 30 miles, and in shape an oval. It contains a superficial area of 1160 square miles, of which 106¼ is occupied by rice lands; one-fifth of it may be considered waste and marshy, but the whole was once cultivated: the remainder is composed of low ridges of hills and mountains, with a very small portion plain overrun with forest. The population according to the census in 1827, gives about 30 to the square mile, but it is of unequal density, the eastern portion being almost deserted, owing to the very unsettled nature of the country, when taken possession of by the British, and since from sickness, and the depredations committed by elephants, a large portion to the E. is now become almost a perfect wilderness*.

The villages or deshums in this portion are very similar to those below, being much scattered on the sides of the fields, but not so much shaded by trees. The cocoanut does not thrive, and but

* Divisions and their subdivisions. Wynaud is divided into 11 subdivisions, those again subdivided into 67 deshums or principal villages; besides the above there are numerous hamlets, which appear on the map, but the public servants have no account of them.

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very few groves of the suparee is to be seen. In the vicinity of some of the deshums are groves of sagoo plants, from which a strong toddy is extracted, A few of the villages on the borders of Mysore are compact, but notwithstanding are insignificant hamlets, and throughout the whole of Wynaud there is nothing in the shape of a respectable town. A street of bazars is here and there to be seen, as at Manantody, Culputty, Corote Peria and Gunnaputty-vuttom, which may contain from 40 to 200 shops. The most conspicuous of them is at the village and post of Manantody. The cantonment at this place, on a low flat hill, consists of a small redoubt, an artillery shed, a range of officers' quarters, place of arms, hospital, &c. There is an upper-roomed house here used as a cutcherry, now falling to decay. Gunnaputty-vuttom situated S. E. 22 miles from Manantody is a street of shops kept by Malabar people, and a few moplahs. At the eastern extremity is a redoubt on a height, and a small building in it is the Umshum Cutcherry, used also as a traveller's bungalow. Culputty, S. S. E. 13 miles from Manantody, is a place of some note from its being the residence of a few brahmins and Chetties. Here also are a few shops and a temporary traveller's bungalow; it is on the high road from the Tamberchary Pass 10 miles N. N. E. of it. In a valley of the mountains to the S. of Brammagerry peak is the famous pagoda of Tirrunelly, delightfully situated; the valley is well watered from several mountain streams, and cultivation continually in progress. Once a year a festival is held at it which is well attended. The Tirchulery pagoda, S. S. E. of the above, is an inferior building, but considered a place of sanctity. About 2 miles to the E. of Manantody is a temple on the left bank of the river on the Aratuthurra deshum, at which a festival takes place, when an immense concourse assemble and live in small booths, built from materials obtained on the spot. The fish in the river at this place are held sacred, and fed by the persons officiating at the temple. Punnamaramcotah was once a strong military post, consisting of an extensive square mud fort with a sepoy place of arms and other buildings, but the whole is now a few mounds. At this place and its vicinity several severe engagements were fought by our troops. To the E. is a line of bazars, inhabited by people of the eastern coast. Goodaloor, a small village, S. E. 39 miles from Manantody, has lately become a place of note, being at the foot of the Nedduvuttom Pass, where the roads from Mysore and Malabar unite; bungalows have been erected and bazars established for the convenience of travellers

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bound to the Neelgherry mountains : the country around it is wild. N. N. W. 2 miles of the former is Numbleycotah, an old ruined redoubt on the top of a low wooded hill, and in a hollow on the slope to the N. is the temple, a very inferior building, but highly venerated by the Todars and Buwagars, who annually make offerings of fruit, ghee, &c. before the shrine. S. S. E. ¾ of a mile from the bungalow at Goodaloor is a large kotur hamlet, consisting of about 200 individuals, perched on the ridge of a hill, which they partially cultivate, but generally earn their livelihood by being employed as musicians and artizans by the farmers and ryots in this subdivision. Davatah situated immediately above the crest of the ghauts, and S. W. 8 miles of Numbleycotah, is a fortified pagoda on the top of a low hill, where the Tachanoor Waranoor Raja resides on his visit to these parts. N. E. 1½ miles of this temple is Watakoil, a Buddagar hamlet, who have large herds of buffaloes ; the valley below it is in a high state of cultivation. The villages or deshums, though few around Numbleycotah, are extensively cultivated, the inhabitants live on the skirts of the cultivation in small groves of jack, mango and the sagoo palm. Poodady and Porakady, situated S. E. of Manantody, the former 10½ miles, the latter 13 miles, are places of note : at the former is a pagoda, the latter a compact village, on a swell, has a redoubt in ruins, with a cutcherry in the interior. In this portion of the country, cultivation is extensive. The population composed of Nairs, Chetties, Coorchers, and many of the lower classes or slaves ; 10½ miles S. S. E. is Mopyenaud. Here is a small fort with a pagoda within about one mile N. of the Kunnearcotah Pass : a few roads communicate with it, but the Pass towards Nellumboor has been shut up for many years.

The Kuppany river has its principal sources on the western ghauts, which take their rise in the range of high mountains N. W. and N. E. above the Tambercherry Pass ; it runs a devious course N. N. W. 15 miles to the E. of Coorumbullah deshum, receiving numerous mountain streams, and one and a half miles N. of the above place it is joined by the Culpaty, a large rivulet issuing from the Vellary and Munnymulla mountains ; from thence it runs N. W. one and a half miles, then N. E. two miles, and receives another mountain stream on its right bank, from the western ghauts. These united streams flow E. and N. E. leaving Panamaramcotah on the left bank, joins another powerful mountain stream, rising to the S. E. of Munnymulla ; it then flows N. three and a half miles, and is joined by the Manantody river, which has its sources in the mountains

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between Banasoor peak, the summit of the Kotiady and Peria Passes, and being joined by numerous streams of the cultivated valleys flows past Manantody, and making several irriguous windings joins the main river which now runs N. N. E. with a widened bed, forms several woody and rocky islands, receives the Bavaly, a very rapid stream, on its right bank near the post of that name. The Bavaly rises in the Terenelly valley, and meandering in a south-easterly direction for 16 miles, receives several streams before its junction with the Cappany. A strong stone bridge was thrown across it, where the high road from Cannanore crosses into Mysore, but the stream being powerful and rising above its banks, the bridge is now left in a precarious state. The main river flowing easterly six and a half miles with bold banks and broad bed, defines the limit with Mysore, receives a small stream E. half a mile off Keyanur, where the Kuppany takes a northerly direction in Mysore to Kakuncotah post, three miles from the latter confluence. The Shaulayaur has its sources in the hills near Chayrencota to the E. and from the Vellarymullay hills, the former after meandering nine miles on the table-land, and the latter eight miles, precipitate themselves down the ghauts, the former S. E. one mile, the latter S. W. three miles off Kunnearcotah, a high hill on the extreme summit of the ghauts, looking S. towards Nellumboor. The Pandyaur has its several sources in the Neddumulla mountains, forming (during the rains) numerous cascades at short intervals. All these united are joined by another powerful mountain stream S. W. three miles from Goodaloor; the latter rises in the Nellymudy, a peak immediately south of the Nedduvuttom Pass, and another branch near Davala pagoda, receiving several other streams rushing down the valleys formed by the slopes stretching from Mupinmudy Peak towards the E., the whole forming a large body proceeds S. W. six miles through hills, rushes down the ghauts into the Nellumboor valley, where it takes the denomination of *Ponpoya*, or the gold river, much of this ore being found in its bed after the rainy season. The Moyaur river has its principal sources on that portion of the Neelgherry mountains immediately S. E. of the Muhurty Peak: it meanders on the mountains north-east, west, then north 18 miles, then rushes down the mountain towards the low country in one continued cataract for two and a quarter miles westerly, where it receives the Chutrapoya, a mountain stream, falling in one perpendicular fall N. W. its course N. W. two and a half miles E. with several windings. North one mile receives a small river which has its sources on the summit of Murpinmudy

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Peak, runs W. with several conspicuous windings to the above confluence 13 miles, from its source passing through a great deal of cultivated land to the N. of Mumbleycotah hill; the river now runs N. one and a half miles. Tooluna, a small hamlet, a short way on its left bank: its course now E. receives another branch, about four miles below, formed by several hill streams in the valley of Muddamulla, running N. of a hill village of the same name, course easterly 15 miles. There are no less than six powerful streams run N. and E. from a junction immediately at Yeddaturracotah, a military post in ruins and a custom-house situate seven miles E. of Gunnaputty-vuttom; from this post the river assumes a N. E. course three miles, receives on its left bank a stream rising on the low wooded valley of Wuddakened dawuggu, after a devious course of 12 miles, generally through wood; one mile below this confluence it receives another stream formed by numerous rills from the hills N. E. of Muddamulla, its course now N. N. E. three-quarters of a mile, Poottancotah, a ruined fort in Mysore on its right bank, then N. four miles. Rampoor, a ruined village on its left bank; about it two small rivulets join from the hills to the S. W.; one mile N. of Rampoor it enters the Mysore country, defines the limit with Mysore, from the confluence immediately S. of Poottancotah; there is another considerable branch which forms the Cubbuny river, flowing through the southern districts of Mysore, and ultimately joins the Cavary.

The table-land of Wynaud is composed of low ridges with innumerable tops, and valleys running in all directions; the only space which is of a more level surface, is about Porukudy, Punnamaramcotah, and Gunnaputty-vuttom to the S. E. The eastern portion is excessively woody, and few hills appear, the whole of it is undulating; to the S. E. are the Nedduvuttom mountains with lofty sublime peaks and cataracts. The ghauts from the Peria Pass towards the Tambercherry Pass and 11 miles to the E. are lofty, consisting of immense peaks from 5 to 6,000 feet high, in short a perfect Alps, and occupy a large surface. The ghauts in the S. E. are low till they meet the Neelgherries, and have only a few prominent tops, perceiveable from the interior, fall in magnificent slopes into the low country towards Nellumboor. To the N. of Manantody five miles is a lofty ridge branching off from the ghauts, and N. of it four miles is the famous mountain of Brummagerry; this ridge forms the limit common to Koorg and Wynaud, and these two ridges form the valley of Tirunelly. In the interior are several detached hills of great elevation. Munnymulla S. E. 15 miles of the capital, occu-

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pies a space of about twenty square miles ; the forests in the valleys are rich and contain a variety of palms, also timber of immense size ; the summit is, however, plain covered with grass. Coorumballacotah though not lofty is excessively woody. During the late war, the inhabitants took refuge on it, it being impossible to follow their track in such a wilderness. Yeddacul, a lofty rock on a table-land S. S. E. twenty miles from Manantody, is surrounded with others, which though lower, are remarkable for their shapes ; the slopes of this hill are covered with forest. Murpinmudy a conspicuous hill with two peaks, lies W. N. W. six miles off Goodaloor ; the slopes occupy a large space, and with the exception of the summit, are covered with a dense forest of an inferior nature. The Davala deshum S. three miles of these peaks. Sucymulla E. N. E. fifteen miles, and Shegabetta E. fifteen miles of Manantody, are situated in the midst of extensive forest containing teak, the ridge of the latter running E. to W. defines the limit with Mysore. Manselbetta, a low detached hill in the midst of forest yielding much timber defines the limit with Mysore. A large portion of this division towards the Mysore frontier is overrun with forest containing some very superior teak : most of the surface is flat, here and there undulating with a few low hills interspersed. From Gunnaputty eastward, the country is intersected by low ranges of hills, and streams between, with extensive cultivation on either bank to Teruvanur, E. five miles of the above place, beyond which to the N. E. E. and S. E. it becomes a sea of forest up to the Mysore limit.

The high road from Manantody to Cannanore, runs in a W. N. W. direction, passes by Dendumelterrah to Peria, a distance of thirteen and a half miles, it is an elegant road but very circuitous, owing to the hilly nature of the country ; it leads principally through lofty wood, a few stripes of paddy intervening ; at Peria is a bazar and bungalow for travellers ; from thence the road winds around the slopes of the hills, crosses several small streams, to the summit of the Pass W. N. W. three miles, (from hence is a commanding view of the sea coast and low country,) here the descent commences towards Neddibrinjal. From Manantody the high eastern road winds over slopes and hills and descends to the Bavaly river N. E. ten miles principally through forest and hills, scarcely crosses any stream, but water and fields in the hollows on the right and left are close at hand. Bavaly is an insignificant place, consisting of a few huts, an old ruined redoubt ; a bungalow was ordered to be built to accommodate travellers. The bridge here, thrown across

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the river, was in a dilapidated state in 1827, in consequence of the river overflowing its banks. This spot is considered to be very unhealthy, the jungle fever prevails to an alarming extent, travellers are known to have caught it, who have been obliged to remain beyond a day. The military road from Calicut by the Tambercherry Pass, enters this district at its summit, runs N. half a mile to Lukkady, a ruined redoubt on the right, from thence N. N. E. by Viteerey, Shaylode, Perntut to Culputty, a street of bazars and a temporary bungalow ten and a half miles; it runs chiefly through thick forest and crosses at intervals four large mountain streams, from Culputty the road winding N. E. through open country over slopes, crosses a good deal of cultivation to Porakady seven and a half miles, it then proceeds N. two and a half miles, and joins the high road from Gunnaputty-vuttom to the capital, it now assumes a N. W., course over slopes covered with wood; passing Punpaddy, descends and crosses a large stream, and immediately after the river half a mile N. E. of Punamaramcotah nine and a quarter miles from Porakady; from the river the road runs N. W. over heights and fields in the hollow, one and three-quarter miles, and S. W. half a mile of Koopatode, a new and near cut from Manantody joins (being four and a half miles less than by the main road) which now proceeds W., winding over slopes and fields at intervals to Kutoor Angady bazar four and half miles; from thence N. W. three and a quarter miles to near Pullykul Angady. The road now assumes a N. E. course and crosses a river to Manantody two and a half miles; from Pullykul Angady situate S. W. two and a half miles from the capital, a road runs W. S. W. eight miles to Corote Angady over very uneven ground and cultivation at intervals; from thence it proceeds to the summit of the Kotiady Pass W. five and a half miles, passing a small redoubt on the right in ruins, another cross road from Kulur Angady passes by Vellamandah to Pyengan Angady W. five miles—in the same course winding joins the road from Manantody towards the Kotiady Pass above described, about three quarters of a mile from Pyengan Angady another road strikes off towards the Tambercherry Pass, proceeds by Poolanjole redoubt one mile, crosses a mountain stream half a mile S. E. of Verampettay, proceeds winding over heights, descends and crosses extensive fields, ascends to a ruined redoubt N. W. in the Eddaturrah deshum, crosses a small river and through fields winding over heights joins the main road a mile E. of Polamoody, the distance from Poolanjole redoubt to this spot being fourteen miles.

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From Kulputty a road runs E. and S. E. round the northern face of the Munnymulla hill to Trickypetta over heights and crosses several small streams; from thence it winds nine miles to Konjotecotah (a post one and three quarter miles N. of the Pass leading to Nellumboor, which has been for many years unfrequented) over heights, crossing much cultivation and the country well inhabited; from Porakudy, a road runs N. E. two and a quarter miles over heights, and joins the high road from Manantody to Gunnaputty-vuttom, it then runs on an even slope covered with wood to the latter place seven miles, a street of bazars and redoubt on a height to the east, with a temporary Chowkey for travellers; from the above place a road towards Goondulpett in Mysore runs E. crosses a stream, proceeds over woods and heights, descends to Tirvanoor six and a quarter miles, and then crosses a broad field and over woody slopes to Edetorrahcotah, once a strong military frontier post; there is now a Chowkey established at it, on leaving it crosses a river, proceeds through forests. River winding on the left to Pongalycotah and pagoda, both in ruins N. E. two and a quarter miles, from thence two and a quarter miles Pottancotah fort in ruins in Mysore; the river crossed S. E. three-quarters of a mile from it defines the limit; one and three-quarter miles, E. of Gunnaputty-vuttom a tolerable road strikes over woody heights to the N. N. E., four miles to a pagoda in the Wuddekeneddaungay deshum, crosses fields, it proceeds winding N. N. E. over high woody slopes, hills rising on the right, descends to the left bank of the Kittarputty-polay six and a half miles, being the limit of Mysore. A road strikes off N. one and half miles from the pagoda abovementioned, proceeds E. and E. N. E. over high wooded slopes, and descends to the ruins of Rampoor six and a half miles; a branch of the Cubbany flowing to the E. of the above ruins defines the boundary between Malabar and Mysore. The road from Konjotecotah to Chuliode proceeds N. N. E. four and a half miles, it first passes over a great deal of cultivation, and crossing a deep nullah, ascends and proceeds over heights winding to the latter place. The road from Sultan Battery or Gunnaputty-vuttom towards the Neelgherries, runs S. through fields; then S. E. over heights and fields to Coilandy, a pagoda and tank on the right two and a quarter miles; it then resumes a S. S. W. course, crossing fields, then over heights and low jungle, descends to Chuliode; two and three-quarter miles from thence across fields, winds over high grounds and joins a tolerable road from Moopyenad (one mile N. of Chayruncotah hill) five and a quar-

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ter miles; its course still S. E. crossing fields at intervals and over woody heights, descends to Nelliadlum Cutcherry three and three-quarter miles; from it the road winds round a hill, descends steep to a large hill stream, it then winds in wood, ascends to the top of a ridge two and three-quarter miles, and one mile S. W. of Murpinmudy Peak; the road then winds S. and S. E. over the slope of a hill, descends one and a quarter miles. Wotakoil on the right a quarter of a mile, a Buddagar village. The road now proceeds E. crosses fields and marsh, and at intervals large streams running down the Murpinmullay ridge to Pooliamparar, a small river, bed rocky, stream rapid; on crossing it the road begins to ascend and winding over hills proceeds on a height covered with wood and bamboo, descends and crosses a small nullah three-quarters of a mile from Goodaloor, to which the road ascends through forest three and a quarter miles. Here are bungalows only lately erected for the accommodation of travellers, also a few bazars; the village is to the north, from hence ascending and descending through wood crossing two hill streams to the foot of the Nedduvuttom Pass, which it gradually ascends with several turns and windings to its summit two and a quarter miles, from thence again descends winding over hills, crosses a few streams to the Chutrapolay, a large serpentine mountain stream; on crossing it the road ascends winding over hills, descends and crosses a stream at its confluence with the Pukkary river; again ascending, river on the left, descends and crosses it; from hence to Ootakamand eleven miles, the road all the way good, winding over plain heights, crosses a few streams and some marsh. The road now making towards the Curcoor Pass, strikes off from the one above described one and a quarter miles E. of Wotakoil, it descends and crosses a large stream and marsh, descends and winds on the eastern slope of Sunnybetta, descends and crosses three small streams, and marshes at intervals, and gradually gains the head of the Pass; it now commences descending, the road zigzag all the way on the western slope of a high ridge, and crosses several mountain rills, the whole through lofty wood to the foot of the Pass five miles; and two miles S. E. crossing a river three different times is Carcoor, an insignificant temple, in the area a bungalow was directed to be built for travellers. The new road towards Mysore goes off N. E. from Goodaloor, the first portion of the ground is difficult on account of the mountain streams, the banks being steep; it then winds round the eastern slope of a woody hill, and then over almost level ground, through a forest of teak, crosses Mullapully, a

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stream thirty yards wide, and ascending gradually N. descends N. E. to Koolimav, a hill hamlet one and three-quarter miles. Thus far the line of road was marked in 1828; it must here be noticed that this road has evidently been carried over the former path with very little variation. The Pundaloor Pass, (now shut) lies S. W. three and a half miles of Nellialam, a very good path leads to the rest of the ridge, but it is now frequented only by the inhabitants of the country thus far. From Manantody a road very circuitous leads W. N. W. then S. S. W. by Taringal to Valaut, a small redoubt, eight miles; two roads branch off the above place, one running N. W. passes by Wutoly, joins the high road about three-quarter of a mile W. of Peria, and the other S. W. and very circuitous to Coongote Angady across a very intricate country: four and a quarter miles from the latter bazar is a road running W.N.W. one and a half miles to the summit of the Belliancote Pass: the other a very circuitous one running over low hills just above the crest of the ghaut, joins the road down the Kotiady Pass one mile above the summit of it. In the eastern and woody portion S. and W. of the Cuppany river there are many paths leading in various directions, communicating between the hamlets and farm houses scattered among these woods. There is a tolerable road, but one of a different nature strikes off from the high road N. E. two and a quarter miles of Manantody, it ascends a ridge and descends into the cultivated valley of Trichelary N. one and three-quarter miles, the pagoda on an eminence on the left three-quarters of a mile; from thence its course N. N. W. winding over difficult ground, ascends the summit of a high ridge in wood one and three-quarter miles, and descends rather steep into the Teroonelly valley N. one and half miles, crosses a branch of the Bavaley river and then through extensive rice fields, river on the left, ascends again the slope of the pagoda N. W.; one and three quarter miles from thence a road communicates with Koorg; it runs up a ridge of the Brummagerry mountain to its summit two miles N. and descends on the other side into the above named province. There is also a communication with the pagoda and high road leading to Mysore, it passes S. E. by Cooducootum, Hoongynile and Chaimbyle, and joins the main road on its crossing the Bavaley bridge.

Iron ore may be obtained in many parts in this division, but none of it is manufactured, there being no smelting places to work it. Gold is procured in all parts of the Nellialam and Numbleycotah subdivisions, but the ore obtained will scarcely pay the labor in

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extracting it from the soil; this operation is performed by a low race called Coorumburs, who have their habitations in unfrequented parts of the hills and subsist on the produce of dry grain, which they cultivate on the slopes, as also rice, which is given them by those persons by whom they are employed.—(See Buchanan's Memoirs on Malabar.)

The soil in the cultivated valleys is a fine rich brown, on the heights it is mostly red mixed with gravel, towards the E. and the woody tract it is almost black, and rich from the accumulation of decayed leaves and other matter. The productions are generally different kinds of rice, horse gram, and other dry grains, castor-oil nuts, and sugar-cane, from it jagary is manufactured but in very small quantities, very little pepper, and no cocoanuts or suparee, though a few trees of each may be seen. Cardamoms are produced in great plenty between the Peria and Kotiady Pass, and are considered to be of a superior quality, also small quantities are obtained on the slopes of the mountains, forming the Tambercherry valley above the Pass. Large quantities of honey and bees' wax are obtained from the forests and rocks among the mountains; these are collected by a person who rents the forests, and these useful articles find a ready sale, at the seaport towns, from whence it is exported. Some of the wax is made into candles. Some tobacco is produced but in small quantities; it is cultivated by a few of the lower classes who are privileged to grow enough for their own consumption, but are totally prohibited to sell, it being a monopoly of Government.

The population of Wyenaud is split into eighty-five castes, and consists principally of Nairs, Punnians, Coorchees, Chetties of various denominations, also, Moola Kurmurs, the whole amount to 34,272 by the census of 1827, which gives nearly thirty individuals to a square mile, but as one-third of this division is occupied by woods, mountains and hills, forty to a square mile may be allowed as a fair estimate, which is scarcely a fourth part of the population of some of the districts on the coast.

Black cattle and buffaloes are not numerous, the latter being strong are generally yoked to the plough, sheep and goats are scarce, the former are brought from the Mysore country, but do not thrive here on account of the humidity of the climate. The wild animals are elephants, byson, tigers of various kinds, elk, deer, and the mountain goat, as also a number of smaller animals.

It is very similar to the climate of Malabar, but the humidity is greater on account of the low heavy fogs before and after rainy weather.

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It is much cooler than the low country, being about 3 to 400 feet above the level of the sea. The thermometer during the cool weather sometimes is as low as 60°, but during the months of March, April, and May, rises to 84°: on the whole it is considered unhealthy, but several convalescents have derived great benefit from a short residence at Manantody, the country around being open. In the woody parts fever prevails at the different changes of the seasons.

Description of the Kurambanaud Talook.

Kurambanaud, a very extensive district in Malabar, is bounded on the N. by Kartanaud, and separated from it by the Kotiady or Kotakul river from its source to the sea, being thirty-three miles: to the N. E. by the crest of the ghauts for sixteen miles, dividing it from Byenaud: to the S. E. by the Calicut talook, running over heights and crossing several cultivated valleys to the Yellatoor Bar for thirty-eight miles, and by the sea coast for twenty miles. Its whole perimeter is 106 miles, in figure an irregular oblong, the superficial area of which is 396 square miles, fifty-eight square miles occupied by rice fields and estuaries, and on an average eight square miles by topes and houses, the remainder low plain heights, hills, forests and mountains. The population according to the census of 1827, amounted to 70,070, which gives about 180 inhabitants to the square mile, about one-third of the district is thickly inhabited, and is confined within twelve miles along the coast.

This district is divided into twelve hobellies or subdivisions, these again into thirty-five umshums, containing 263 deshums or villages; there are no towns or compact villages in the whole country, excepting Coilandy and Kotakul on the coast, the deshums being scattered on the verge of the extensive valleys of rice cultivation in the interior.

There are few places worthy of notice in the whole of this district. Neddavenur is considered the capital from the cutcherry being held there; it is also the residence of the tassildar, and the other revenue officers. To the W. half a mile from the cutcherry is a celebrated pagoda with a Nair population. To the S. one and a half miles on the right bank of a narrow deep stream, which is navigable for small craft, is a street inhabited by weavers; another street of weavers lies half a mile E. of the cutcherry at the foot of a woody range. The cloths manufactured are for the use of the inhabitants of the surrounding country. Coilandy, a large moplah town on the

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coast, is a place of considerable note; here is a celebrated mosque built in imitation of one at Mecca, the dome is covered with sheets of copper, which Arab vessels passing down the coast never fail to salute, and all Mohomedan seamen offer up prayers in coming abreast of it. There is a tolerable bungalow here for the accommodation of travellers. On the W. end of the town are some large store houses, also a few inferior mosques and burial places, the inhabitants are generally moplahs with some Mucwars or fishermen, the latter having their houses in a line apart near the sea. The Tungul or chief priest resides here. To the N. W. of the above place, is Collum, being two streets apart from each other, inhabited by weavers, one by moplahs and the other by Nairs: the latter caste dispose of medicinal drugs, fruits, &c. N. W. three and three-quarter miles from Coilandy is a celebrated Hindu temple, and near it a deep triangular tank of water, in the side of the high road, Goodaloor situated on an high peninsula is also the residence of moplahs. A fort was built here, but is now in ruins. Tambercherry, once a place of some note as a military post, situated some distance from the bottom of the Pass of that name, is now dwindled away to a few bazars kept by moplahs; near it was the residence of the Pychee rajah; there is also a pagoda and reservoir, but the former is in a ruinous state, a few of his aderents continue to reside in the vicinity. The landholders of the surrounding country are mostly all moplahs. Kotakul a seaport, is a large town inhabited by moplahs; here is a mosque of some note on the southern bank of a large navigable river, which discharges itself into the sea a mile N. W. of the village. It lies N. seventy W. thirteen miles from the capital. Walachairy situated S. E. four and a half miles from the capital is celebrated for a pagoda in a grove of teak trees; many Numburies reside in their illums which are in the vicinity, but the mass of the population consists of Nairs, Teers, and other lower castes. S. W. half a mile of the temple is a bungalow on an elevated spot, for the accommodation of the collector when on circuit at Chaloye. Kutoly, the capital of the Pyermellnaud, is the residence of a petty chief; here is a pagoda of some note, and a Chuttrum for brahmins. The inhabitants around are chiefly Nairs, their habitations skirt the fields; from Neddavenur N. W. seven miles. Mulenauneum two miles S. of the above place is noted for its pagoda surrounded by a stone wall, a number of Putter brahmins reside here, who traffic in cloth. Kypurt N. W. two miles on the left bank of the Cootiaddy river, once a place of note, is now almost deserted. A considerable moun-

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tain stream joins the river to the N. of it. The suparee grows in the neighbourhood in great luxuriance. In the N. E. portion of this division a few stripes of wet cultivation in the forests are not unfrequent, with a kullum or granary and farm house, as also the huts of the Churmurs and Polians on the skirts of the fields.

The source, course and utility of the Kotakull river has been noticed already in the description of Kartanaud. There are several large streams join it on its left bank, these partly have their sources in the ghauts, and wind principally through forests; none of them are navigable, but a great deal of timber is floated down during the monsoon. There are also several streams formed in the cultivated valleys, running N. N. W. which empty themselves in the above river. A small river flowing one and a half miles south of Neddavenur is formed by the mountain streams rising between the Chengode hill and Poonaturetty range; it is navigable to near Kukote Angady, about one mile S. W. of Neddavenur, and empties itself in the Coilandy backwater, three miles S. S. W. of the above bazar and E. two miles of the town of Coilandy. This estuary is formed by the Punut, which has its source in the mountains N. W. of Tambercherry, flows one and three-quarter miles W. of it, and winds principally in the northern portion of the Calicut district, as also by the smaller one flowing S. of Neddavenur, and discharge their surplus water into the sea by the Yellatoor Bar: this estuary is navigable from five miles N. of Calicut, for sixteen miles to within a mile of Pyoly on the left bank of the Kotakull river; it was in contemplation to excavate a canal from it to the river, but the inhabitants having represented that a large portion of fields would be inundated by the rising of the river during the rains, the intention has been abandoned. The object was to extend the inland navigation to the town of Wuddakurray in the Kartanaud talook; its general width is from 150 to 400 yards, rather shallow with a muddy bottom, and is throughout affected by the tide: it runs almost parallel to the coast.

The ridge of the ghauts extending from Banasoor Peak to Taniote Mullay is exceedingly lofty, over which there is only one small defile or pass called Echacaun into Wynaud, but which is not frequented on account of the wild nature of the country from Payrumparah to the foot of the mountains. Besides the Peaks mentioned, there are others in the intermediate space, as Coorchypad Maunawara, and Nurrycote, from the ghauts, ridges of great length extend towards Cootiaddy, and Ponturity, a high hill N. E. four miles of

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Neddavenur; these as well as the lesser ridges run N. W. and occupy upwards of 120 square miles, intersected by deep mountain streams, and the whole covered with dense forest, producing various kinds of useful timber and bamboos. Lower slopes, some covered with wood, and others plain, intersect the country in various directions, to within three miles of the sea coast. Chengode hill N. E. three miles, Pulcoon S. S. E. six and a quarter miles; the former may be considered as a continuation of the Pooniatu range: a ridge from it ends S. E. of the capital: the latter is a detached hill with the ridge running S. W. three miles, and another N. half a mile; the summit is plain but the sides are thickly wooded. Nuninar a single hill S. S. E. three and a quarter miles from Wuddakurray, and about a mile inland is conspicuous some distance at sea from three remarkable banian trees on its summit, from whence is a commanding view of the whole of the peaks on the range of the ghauts, and also of the surrounding country and river. Prawmullay N. N. W. three and a half miles of Coilandy is a low woody hill. When seen from Calicut it appears as if it were an island, occasioned by a small bay which the sea makes. To the S. of it there are several small hills, which jut into the sea which form an irregular and rocky beach.

The only road that will admit of wheel carriages is the one from Calicut towards Cannanore. It enters the district on crossing the Yellatoor bar, passes over a sandy level, crosses a few fields to Coilandy, from thence again over level ground, and some fields W. of Prawmullay, and afterwards through low jungle, cultivation at intervals to the Kotakull river, N. E. half a mile of Nuninar hill, and eight miles from Coilandy, (the opposite bank being in Kartanaud). This road is partially lined with trees, and in some places very sandy and sprinkled with jungle. There are several roads passing in different directions communicating with the principal places, but all of them intricate, difficult and circuitous, owing to the uneven nature of the country. The road from Calicut to Neddavenur enters the district a mile to the north of Tullacollatoor in the Calicut district, and distant from it seven miles. It meanders over heights and cultivation at intervals, and joins the road from Coilandy, N. N. E. six miles from the boundary. The road from Coilandy crosses the estuary E. of Kuramunkadu two and a half miles, and from thence over an uneven surface E. four miles to Jyanarperumbu a high open ground, where the Calicut road joins; from thence N. W. one and a half miles, crosses a deep river, then N. one and a quarter miles to the bungalow at Neddavenur, from

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thence the road to Cootiaddy N. thirteen miles by the following deshums, Chelwaloor, Keenanium, Katully; one and a half miles N. of the latter it crosses a large mountain stream, and thence to Palary, then along the high banks of the river for two miles, crosses it to Kartanad district. This is on the whole an indifferent road from the uneven nature of the country, and passes through wood and jungle at intervals, the nullahs in the fields are some of them steep and difficult to cross, and the fields during the rains partially inundated. A road strikes off from the main one two and a half miles S. of Nuniorar hill in the Kununcolum deshum, and proceeds by Pyalu, Iddungacudda bazar, Mapoor, Kyalah, and crosses a stream at Wuliacode and joins the former road at Keenanium, after passing a ridge of low hills; from the main road to the latter place, it winds over undulating ground ten miles, across fields and wood at intervals, and some deep nullahs. The road from Tambercherry to the westward crosses the Poonut river, W. N. W. two miles, Kundapurum deshum on the left, then along fields, crosses them and winds at the foot of low hills to Mundakurra W. three and three-quarter miles, then W. S. W. crosses the fields to near a ruined redoubt on Jyanar Perumbu and joins the road from Calicut and Coilandy W. three and a half miles; the road from hence to Kutiaddy runs N. N. E. one mile, crosses a small river over a wooden bridge in ruins to Tricootycherry one mile, then N. W. fields on the left, crosses a Pass through hills to Chewaloor N. N. W. four and a half miles, and joins the road from Neddavenur. The whole of the above roads are in many places difficult, and intricate, from the uneven nature of the country. The high military road from Calicut to the Tambercherry Pass enters the district a quarter of a mile N. E. of Pudanalum, passing by Koduvelly and Murkurt to Tambercherry bungalow N. N. E. six and a half miles from Pudanalum, generally on heights through wood, river partly on the right, from thence winding through forest passes Mullapuram and Pudupuddy, and half a mile N. N. E. of the latter place crosses a mountain stream and again enters the Calicut district six and a half miles. The whole of this road is lined with an avenue newly planted. From Koduvelly N. N. E. two miles of Pudanalum, once a military post, a road strikes off S. E. crosses the Tambercherry river two miles, enters the Calicut district.

Iron ore is obtained from pulverised stones found on the hills of Pulcoon and several other hills, which is smelted in the neighbourhood. Gold may be obtained in the beds of the mountain streams

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in the interior, but no pains have been taken to search for it. See Description of Kartanaud.

The soil of the interior is red, and much impregnated with laterite, the cutivated valleys a rich loam, but towards the coast a brown loose earth. The productions are rice of various sorts, a great deal of dry grain, and pulses cultivated on high ground, cut into terraces, cocoanut in great profusion along the coast, and for some distance inland; areka in the interior grows in great luxuriance, also pepper, but the produce is small compared with the size of the district; some cardamoms and cassia from the mountains bordering on Wynaud are obtained, as also honey and wax in large quantities.

Description of the Calicut Talook.

The Cushah or Calicut district is bounded on the N. by the Kurambanaud talook, for thirty-seven miles, the Yellatoor river defines it for four miles to the N. E., the crest of the ghauts for nineteen miles from Byenaud to the E.; W. the high range Wawootmullay, commonly called camel's hump, for thirteen miles; to the S. E. the Punnymally range for nine miles, also the Kutiatoor river four and a half miles, to its junction with the Baypoor at Pawoor, in all twenty-eight and half miles from the Ernaud district; to the S. the Baypoor river to the Bar, for twelve miles divides it from Shernaud, to the W. by the sea coast fourteen and half miles; its whole perimeter being 109½ miles, it contains a superficial area of 261½ square miles, thirty-nine and three quarters square miles are estimated as being under wet cultivation, twenty square miles of houses and topes, 100 square miles by low hills, some parts plain, others jungly, and the remainder to the E. being forests and mountains. In figure it is very irregular, its greatest length N. E. being twenty-eight miles, and about the centre it is confined to within two and a half miles, bulging out at both ends. It has a population of 300 souls to the square mile, but more dense along the coast.

This district is divided into twelve hobellies, these again subdivided into twenty-one umshums, containing 128 deshums or villages, scattered and skirting the cultivated valleys.

There are but few compact towns or villages in this division. The capital altogether is extensive but much scattered, being divided into small estates. The nuggarum or town consists of one very extensive street of bazars, about three quarters of a mile in length,

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some have upper stories, many narrow cross streets lead from the main one. To the S. extending to the river is a dense population of moplahs, with numerous mosques and reservoirs scattered about. To the N. W. is the flag-staff and the Portuguese town composed of a number of streets, with respectably built houses, considerably crowded. In its vicinity is a Roman Catholic Church and a large reservoir of water on the S. surrounded by garden-houses of opulent Portuguese families. Facing the sea is the custom-house, and on either side extensive buildings serving as store-houses, mostly the property of natives. A beautiful reservoir of fresh water of about 200 yards square with flights of granite steps, both useful and ornamental, is almost surrounded by garden-houses towards the E. On the N. W. of it is the Collector's cutcherry, an upper-roomed house. To the E. of the reservoir is a small parade for the detachment stationed here, also the sepoy lines and a stone reservoir, in figure an octagon, has a flight of granite steps all round, but the water is not drinkable. The jail is in the Portuguese town, a formidable building, and to the N. the zillah court, and near it the English burial ground, with a few very old foreign monuments and some modern ones. There are two bungalows facing the sea, and others scattered about on the northern road. A palace of one of the Samory rajahs is worthy of notice, it is a modern building three miles to the N.; not far from the coast in the Koondoor deshum on a rock, is the pagoda of Worakul with a flight of steps; it is a place of great sanctity, but the edifice itself is wretched and in a state of decay. E. of it and perched upon low hills are two elegant houses commanding a very extensive view of the sea. S. sixty, W. two and a half miles from Calicut is another palace belonging to a branch of the Samory family, a very extensive building; to the S. of the above and across the river is an umbalum or pagoda surrounded by a strong wall, where a festival is annually celebrated. There is also a celebrated pagoda in the S. E. suburbs of Calicut itself. Baypoor a place of note lies S. twenty, E. six miles of the capital on the right bank of the river of that name: it is one of the principal depôts for teak timber: many craft and a few small vessels are built here. The Bar at low water is twelve feet deep, and at spring tides sixteen to eighteen feet. Here is a loft of large dimensions, that now serves for the accommodation of travellers: to the W. is a windmill, built at a considerable expense for cutting timber, but failed in the first attempt: the machinery, saws, &c. are now fast going to decay. To the N. are a few bungalows and a canvass

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manufactory, it was for some years conducted by the sergeant of the name of Sheppard, but from want of funds, the whole is now at a stand. The town Baypoor consists of a few bazars kept by moplahs to supply travellers. Pandalum N. fifty, E. ten miles, from Calicut is a small street of bazars on the S. bank of the Yellatoor river on the road of Tambercherry, Pudiangady N. fourteen, W. three and a half miles on the coast; Yellatoor N. seventeen W. six and three quarter miles, from Calicut; each consists of a small street of shops, at the former on the W. is a dense population of moplah traders. Tullacollatoor N. five W. eight miles from Calicut is composed of two streets, one occupied by weavers, the other by shops kept by moplahs. There are numerous small temples called Ruggavaddy Umbalums and Cauvs, at a great number of the deshums: those of note are in the Chatamangtom umshums. Pootoor Bhaggavaddy, though a very common edifice, is very much venerated. Kooderangy is a temple in the Tiruvumbuddy deshum in forest at the foot of the mountains, an annual festival is celebrated here by the Mullialers or mountainers, and an entertainment is given them, also cloths, by the Utiel Nair, who is considered and acknowledged as their lord and master, to whom they give the produce which they collect such as honey, bees' wax, &c. &c. These Mullialers principally live on roots and inferior animals, also cultivate small tracts on the slopes with dry grain, and rear vegetables.

This division of the country is intersected by streams meandering through the valleys of cultivation, some of great extent, also the mountain streams swelling into rivers, ultimately discharge themselves in the Baypoor river to the S. and the Yellatoor to the N. The latter rises in the valleys of the mountains N. of the Poonoor deshum; it is formed by innumerable rills rushing down the mountains W. of the above deshum, and runs meandering S. seventeen miles to Padanalum on the left bank; from this place it winds W. S. W., N. of the Vellayaur, Paventhur, Chalur, and Malarcoon, deshums for eight miles with considerable windings; it then takes a N. W. direction, passes N. of Vengary and Kaureannur, (one mile N. of the latter place is the Porakatay ferry on the road from Calicut to Neddavenur,) to the E. it forms an estuary with several branches; the stream runs N. W. forms an island round Paruturity deshum, and finally discharges itself into the sea after running a devious course of nine miles, from its source thirty-four miles partly through Kurambanaud. A river which has its principal source in the Wawoot mountains, (or camel's hump) flows W., then S. S. W.,

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W. of Tirruvambaddy and Kutiatoor deshums, joins the Baypoor river E. of Pawoor, from its sources running a devious course of twenty-three miles generally through forests with high banks, receives at intervals numerable and rapid streams from the range of mountains on the E. It is navigable for small boats up to Annaykium from its confluence, where a large mountain stream joins it; a great deal of timber and bamboos are floated down during the rains. A river rising in the ghauts is in the vicinity of the Tambercherry Pass; it rushes down the different valleys in the mountains to within one and a half miles S. E. of the town of Tambercherry, it meanders with several devious windings through Perumkotoor, Kurravampail, Poolacherry, Chatamungalum, Mullapurum, and half a mile S. S. E. of the deshum of Cheropa joins the Baypoor river twelve miles from the sea. A narrow but navigable channel from the right bank of the Baypoor four miles N. E. of Baypoor, here is a Sunkum or custom-house, and customs are levied on all timber floated down the several rivers in the interior; it has a most devious course with innumerable serpentine windings N. W. to the Kakye bridge S. of Calicut, then it winds S. W., and one mile from the bridge communicates with the sea, the Bar being open only during the continuance of the S. W. monsoon; direct distance from the Baypoor river to the Calicut bridge is only four miles, and by the channel it is full eight miles, its breadth may be estimated at from 20 to 200 yards; it widens as it approaches the bridge and forms a few small islands. It receives a large stream in the Wullianad umshums S. of the Samory Rajah's palace, the discharge from the extensive fields to the E. about Parumuma, Peroovyil Covelekutoor deshums. Stone reservoirs are seen in the vicinity of some of the larger temples, three of them are at the capital, and many but inferior in the southern suburbs of Calicut. There are no lakes, but during rains, large portions of paddy land become inundated, and continue so for some days, which often tends to injure the crops. Kunnypurubu twelve miles from Calicut, is famous for a spring on a bare rock on high table-land, which oozes only during the new and full moon, and at other times is perfectly dry; it is venerated by the higher classes and visited by them in great numbers during these changes to partake of the water, which is considered holy.

The high northern road enters the district after ferrying over the Yellatoor river, it runs in a parallel within half a mile of the sea, passing through Yellatoor, Pootoor pagoda on the right, and Pudiangaddy, winds into the interior, reaches Calicut; distance seven and a half

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miles from the river: it is an elegant level road but sandy, is partially lined by an avenue, crosses some stripes of wet cultivation. From Calicut it proceeds S. to Baypoor, crosses the Kullye river over a long wooden bridge one and a half miles from the Collector's cutcherry, then through dense gardens and houses, all the way to Baypoor, seven miles; it is an elegant road rather sandy and lined with a shady avenue, runs in a parallel to the seacoast about one and three quarter miles inland. The inland road strikes off to the left three and a half miles from the former one, at a few bazars, and a fish mart, it proceeds S. S. E. crossing fields at intervals to the Maurly-cuddu or ferry across the Baypoor river to Paraka a bazar seven and a half miles from Calicut; from thence it winds N. E. then S. S. E. to a bridge across a small stream in the Rammad umshum over high and very rocky ground, then to Chellembra four and a half miles, winds S. E. and E. N. E. through a defile and rocky ground, descends to Bellarum and passes into the Ernaud talook five and a half miles from the former place. This road is lined all the way to the ferry, then partially so, trees seen at alternate distances from the rough nature of the ground it passes over. Wheel carriages may, but with difficulty be carried over it. The road to the Tambercherry Pass from the capital runs over heights and crosses a few fields of cultivation, it goes through the deshums of Nedungatoor, Chaloor, Carentoor, Vellavoor, to Pudanellum a small bazar on the left bank of the Vellatoor river, distant eleven and a half miles; the country it passes over is very undulating. From thence to Tambercherry N. N. E. seven and a half miles by the deshums of Kodavilly, Mockulangady, Chumbra, the Yellatoor river winding on the left; from Tambercherry it passes by the deshums of Mullapuram and Pudupandy to the foot of the ghaut. A Mussulman tomb and cave N. E. nine and a quarter miles, crossing in this space several mountain streams in forest, and runs over very undulating ground; from thence to the summit about one mile N. very steep and zig-zag enters Byenaud; this is a difficult Pass; guns have been carried down, by taking the carriage to pieces. A tolerable road goes off from Kodavilly N. N. E. two and a quarter miles from Pudunellum, to the S. E. by Poolenur to Pavoor, on the N. bank of the Baypoor river nine and a half miles, it winds over plain heights in general, and crosses a few stripes of paddy fields at intervals, also a river four miles from Kodavilly, is partially lined with trees, and only frequented by the inhabitants of the neighbouring deshums. A road to Neddavenur in the interior strikes off from the main road half a

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mile N. of Poodeangaddy, proceeds N. by Cauvenoor, and crosses the Yellatoor river to Tulluculatoor, a bazar four miles, and N. one mile to Kanganoor in the Kurambanaud talook : it is frequented by travellers and public servants.

The country to the eastward from the coast to Padanutum and the S. portion of the Polavoye subdivision, up to the river running to the W. of Tirruvambaddy, may be considered open ; the hills in this portion are generally plain, and some flat with ledges of rocks running along their crest, the most conspicuous is Ponpaurae, eight miles E. of the capital, which has a ledge of large rocks on the summit impregnated with iron or some other mineral, but it is not held in any value by the natives. Round Calicut are several plain topes about two and three miles from it, pleasantly situated, having commanding views of the sea from their summits to the eastward, the face of the country becomes one dense forest up to the ghauts on the N. E. ; and the lofty range of mountains to the E., called Wawoot Mullay, dividing this division from Byenaud and Ernaud, contains large quantities of teak and other timber, also bamboos and a hollow reed, which are cut and floated down the small rivers during the rains to Calicut and Baypoor.

Iron ore is obtained in several places, and much of it is smelted at a few of the deshums. In the bed of the river near Tirruvambaddy small quantities of gold ore are extracted from the sand ; it is not improbable most of the mountain streams contain this mineral, but the process of working it is not known to the inhabitants. Cloth of various qualities is manufactured at the capital and the deshums in the interior, but large quantities are always imported both by sea and land, arrack and jaggary from toddy, extracted from the cocoanut tree, kyar, cables of different dimensions, ropes for rigging, fishing nets, mats, and chettries are manufactured at Baypoor and Calicut.

The soil about the sea is a light brown sand, in the interior on the heights and slopes it is red with gravel ; in the valleys of cultivation it is a mixture of red and brown, but the whole land covered with wood is a rich black mould, occasioned by the accumulation of rotten wood and leaves discoloring the water of the river, which falls into the Baypoor river at Pavoor. The productions are rice of various sorts, cocoanuts, areka, or suparee ; dry grains, also pulses of several kinds, and sessamum : these are grown on the higher slopes being cut into terraces, also large quantities of teak and other timber ; bamboos are obtained in the forests, and floated down

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the rivers to the depôts at Baypoor and the Kulkye bridge near Calicut.

The population of this division is split into sixty-six castes, but the Nairs and Numboories, Moplahs, and Illoovems predominate, being almost two-thirds of the whole population, which amount to 78,593 individuals, exclusive of people of colour and Portuguese; on an average this would give 300 to the square mile, but they are more dense towards the coast, there being in the capital and its suburbs no less a number than 20,000 individuals; a very few of the higher castes, and those being chiefly employed in the public service reside at Calicut.

The domestic cattle of the country are very diminutive, consisting of bullocks, cows, buffaloes, and goats; sheep do not thrive, are generally driven in herds from Paulghaut. The wild animals are elephants, tigers of different kinds, byson, elk, deer, and many of the smaller species; these latter are confined to the forests and mountains: a few antelopes rove about the plains of Nellypurumbu near Baypoor; they were introduced in the country some years ago, are perfectly wild, and their numbers are on the decrease.

Description of the Shernaud Talook.

This division is bounded on the north by that of Calicut, the Baypoor river defines the limit for twelve miles, on the northeast by Ernaud for twenty-eight miles, the ridge of Oorut Mullay defines the limit in this space five or six miles, to the east by Wullawoornaud six miles; to the south and southeast by Bettadanaud for twenty-two miles, to the west by the sea coast twelve miles, giving a perimeter of eighty miles, containing a superficial area of 165¾ square miles; thirty-seven square miles occupied by wet cultivation, the interior by high flats, and extensive valleys between them, and on the coast, and some distance from it the land is flat, and much of it occupied by the houses of the inhabitants, and dense groves of cocoanut, jack, and other productive trees. By the census of the population taken in 1827, it gives about 400 individuals to the square mile, but the largest portion reside on and near the coast. Almost one-half of the whole population of the district are moplahs.

This district is divided into eleven hobellies or subdivisions; these again are subdivided into umshums, each containing a certain number of villages or deshums, and amounting in all to 175. The houses of the inhabitants are scattered in luxuriant groves, which skirt the wet cultivation running in long valleys in all directions.

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Tiru Ungady, the capital of the district, is situated five miles from the seacoast, and S. thirty-seven, E. seventeen miles from Calicut, has always been a place of considerable note. There is one long and some crooked streets; the houses are on a large scale, being the property of opulent moplah merchants. It lies on the south bank of a river running in a very deep hollow; on the north bank stands a beautiful mosque, the situation very picturesque. There is another on the south bank, a large pile of building in the main street of little note. The cutcherry and bungalow to the west, where the revenue duties are transacted, is built on a high plain commanding a very extensive view of the surrounding country. To the north and across the high road are the remains of a fort dismantled many years ago. In this vicinity a decided victory was gained by General Hartley, over Tippoo's troops in 1790, Purpun Ungady, N. sixty-seven, W. five miles, and Kuddelhundy N. forty-six, W. seven and three-quarter miles from the capital, are two moplah towns on the seacoast, consisting each of a street running in a parallel with the coast; the former has a larger population with bazars and several mosques; at the latter one only, some trade is carried on: at both places kyar, cocoanuts, &c. are exported in small vessels. Ooputungady is a small bazar lying N. fifty, E. three miles of the capital, is an insignificant fish mart; Chappanal Ungady S. seventy-three, E. ten miles, from Tiruvan Ungady, is situated on an open flat on the road to Angadypuram; the street runs E. and W. about 500 yards and a few of the bazars display several commodities for sale, required by the surrounding inhabitants. It is singular that at the western extremity of the street, the limits of Shernaud, Ernaud and Vullavoornaud meet, and the street itself is divided, the north side falling into Vullavoornaud, the south into Shernaud; water is only procured from wells of immense depth. Roads meet at it from all directions. Venkatykotah S. 63, E. seven and a half miles from the capital, is a small fort with a pagoda in the interior, also the residence of a Tambaretty, one of the sisters of the Samury family; the revenue of a large portion of the lands around it is collected by her dependants, she paying a certain portion to Government. At Chalium, immediately S. of Payroor, are a number of shops for the retail of salt. On the west is a mosque and reservoir. It is an island formed by the Kuddelhundy and Baypoor rivers, and west by the sea, and is ten miles in circumference. N. seven, E. four and a half miles from Kuddelhundy is a street of bazars called Purrahee; a market is held here on Tuesdays, and the

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inhabitants from Calicut resort to it for provisions, poultry, &c.; half a mile S. W. of it, on an elevated spot, are the ruins of Furrokabad, commanding two beautiful reaches of the Baypoor river, which flows immediately to the north of the fortress. It was planned by Tippoo, whose intention was to make it the capital of Malabar, but was left unfinished on the approach of our troops: he compelled a large portion of the inhabitants of Calicut to settle here; on his departure, they returned to their former abode.

The Baypoor river which defines the northern limit is upwards of three furlongs wide at Baypoor, but in its course up to Aricode, it narrows to 400 yards, and is navigable for boats at all seasons. The Kuddelhundy river rising in the southern slopes of the Koondah mountains, enters the district N. three miles from Chappanal Ungady, meanders westerly with many serpentine windings, flows north of Tiruvan Ungady, from thence northwest and west, empties itself into the sea at Kuddelhundy, after traversing twenty-two and a half miles in this district, being navigable all the way; one branch strikes off N. E. two and a half miles from the above place, runs N. and N. W., joins the Baypoor river opposite the town of that name, and forms the island of Chalium. Several large streams, having their sources in the Oorattumullay and Walliatoor hills, meandering through the cultivated valleys, join the above river at alternate distances; they are too numerous to be described.

With the exception of a portion of the country a few miles from the coast, which is flat, the remainder is undulating, intersected in all directions by extensive valleys of wet cultivation. The highest range of hills is Oorattumullay running N. W. and S. E., its slopes covered with forest and confined to its base; the next is Walliatoor to the N. E. with two tops, the range running E. and W.; and two miles N. E. of Kuddelhundy is Kotahcoon, a long plain hill, situated in a bend of the river; on its summit is a remarkable large tree and pagoda which is very conspicuous from the surrounding country. E. N. E. four and three-quarter miles from Kuddelhundy, and on a low hill to the S. of the inland road from Calicut to Paulghut, is the Kakanchairy bungalow belonging to the Collector; it commands a fine view of the surrounding country, seacoast, and rivers.

The high southern road enters the district after passing the ferry at Baypoor, proceeds to Kuddelhundy; on crossing another ferry three miles from thence to Purpungady three and a half miles, proceeds towards Taunoor in the Bettadanaud Talook six miles, it generally runs along the seacoast over heavy sand; to avoid this inconvenience

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a road from Kuddelhundy is carried off into the interior, winding through a rich tract, and is in no place above three-quarters of a mile from the coast; both these roads join again on the west of Taunoor, these are the only roads that will admit of wheel carriages; a tolerable road leaves the main one, one and a quarter miles south of Purpun Ungady, and proceeds to Tiruvan Ungady four and a half miles, it crosses a small river three miles from the latter place, which is not fordable during the rains; on leaving Tiruvan Ungady it runs southeast and east, crosses a small river winding Venkattacotah on the right, proceeds over waving undulating grounds and very rocky heights to Chappanal Ungady, then it enters into the Vullavoornaud talook, and proceeds to Angadypuram. Another road from Tiruvan Ungady on crossing the river runs over heights, and some undulating ground to Mullapuram Ungady in Ernaud east ten miles: this latter place is on the right bank of the Kuddelhundy river at a great bend. The road from Tiruvan Ungady to Koondoty is much frequented, passes through Ooput Ungady, then over high ground very winding, leaves Oorattumullay on the right, crosses a large cultivated valley and descends to Koondoty northeast eight and a half miles: some of the above roads are lined with an avenue of jack and mangoe trees. Many paths cross the country in all directions, only adapted for foot passengers.

Very little iron is manufactured in this division, there being only two smelting places in it. The manufactures are some coarse cloths, kyar from the husk of the cocoanut, also oil of various kinds, jaggary and arrack from toddy extracted from the cocoanut tree.

The aggregate amount of the population in this division by the late census amounts to 66,267 including children, and would give 400 individuals to the square mile; almost one-half are of the moplah caste, and about one-fifth nairs; the remaining numbers is split into forty-two castes composed of the higher, but mostly of the lower order, as Polians, Churmurs, Punnians, &c.

There are few wild animals in this division from its being almost an open country. Tigers, chetahs, also wild hog, elk and deer, are to be found in the woods and jungle in the north-east portion. The domestic cattle are the same as those described in the Kartanaud division.

Description of the Ernaud Talook.

The Talook of Ernaud is bounded on the north generally by the ridge of ghauts from Wyenaud, (with the exception of thirty-four

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square miles of wood below the ghauts lying between the Kellakapoya and the Ponopoya), for forty-eight miles, on the northeast by the crest of the Neelgherries and Koondah mountains for twenty-eight miles, to the southeast and south by the Wullavanaud talook for forty-seven miles; the Pundaloor range of hills, and a portion of the Tiruvangady define the limit on this side to the southwest from the Shernaud talook for twenty-eight miles; to the west and northwest by the Calicut district for thirty-three miles, the ridge of the lofty range of mountains called Wavoot running south from the ghauts, and the Punnycode range to the west defines the limit for twenty-two miles; its whole perimeter being 184 miles, and contains a superficial area of 655¾ square miles, sixty-two and a half occupied by wet cultivated rice lands, 316 of timber, forest, and mountains, the remainder by low ridges, mostly covered with wood in the western portion of the populated tracts. By the late census taken of the population including children, it would give 210 individuals to the square mile, but confined mostly to the western portion of the district.

This division of the country is divided into ten hobellies, those again into twenty-six umshums, and contains one hundred and sixteen deshums or villages, scattered all over the western and southern portions of the district.

Ernaud is only a division so called in Malabar, but Munjairy, being centrically situated, is considered the capital; here is a bungalow on an open height, at which all the revenue duties are transacted by the tassildar, and other functionaries, who reside on the skirts of the fields in the neighbourhood. To the southeast a quarter of a mile from the bungalow is a pagoda on a low hill, and immediately below it is a kolagum or palace of a Tirupad, a secondary class of princes, many of whom have claims to land in different parts of this district. The country around is open, consisting of high ridges with valleys of cultivation between them. The only places of note in this division are Ariacode N. thirty-one, W. ten miles; Eddumunnah N. eleven, E. seven and a quarter miles; Mombut N. twenty-three, E. ten miles from Munjairy, all moplah towns pleasantly situated on the south bank of the Baypoor river, having regular streets and a mosque at them.—At the former of these and half a mile south of the tower on a hill is a modern bungalow, for the accommodation of travellers from the coast to the Neelgherries, viâ the Caracoor Pass; at the latter a salt golah (store-house) was lately established for the convenience of the hill people on the

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Neelgherries; Koondoty N. seventy-eight, W. ten and three-quarter miles from Munjairy, is another moplah town on the road to Calicut; here are also some mosques, and the residence of the Tungal or Mahomedan high priest. A very extensive valley of paddy cultivation to the south of it, across which are also a few houses on the road leading to Tiruvangady: Pulanoor, also on the high road, to the East lies N. eighty-three, W. three and three-quarter miles from Munjairy; it is a small street of moplah houses with a rather elegant mosque, and to the west across the fields is a fortified umbalum or pagoda in ruins. The country about it is in a high state of cultivation, and surrounded by low hills partly wooded. Nellykuth Ungady S. eighty-three, E. four and three-quarter miles in the road to Angadypuram on the north bank of the Tiruvangady river, is a street of moplah houses, venders of salt and other articles brought from the coast, and Mullapuram S. forty, W. five and a quarter miles, is a long street of houses with a small mosque, the whole in a very ruinous state. Nellumboor N. thirty-two, E. fourteen miles, on the left bank of the Baypoor river, also Amarapolliam N. fifty-one, E. thirteen and a half miles, are the residence of Tirupads. There is a kolagum or palace, also pagodas, at both places: the Tirupad is a person of consequence. The whole of the timber forest, as well as several kulums or farms scattered around, each having a stripe of paddy cultivation, belongs to him. The Punniars, a low class, reside and cultivate small tracts in the forests; they are all slaves to the Tirupad; they assist in the cultivation at all his farms during the fair season, but are principally employed in cutting timber, which the Tirupad disposes of to individuals who contract for it. His residence is surrounded with a mud wall, where several brahmins also reside, who officiate at the pagoda, and transact all business for him. There are several Nair families in the vicinity. The places of worship are very numerous in this division, there are no less than 130 umbalums and cauvs, but very few are worthy of notice; those of some celebrity are at Wundoor, Tirwalley, and Ponpalla to the northeast, and one at Tirkullyur in the Punnycode umshum, about a mile north of the Baypoor river.

The principal river is the Baypoor, known also as the Ponpoya or gold river, it rises on the mountain south of Nedduvuttom Pass, meanders through Wyenaud, and rushing down the ghaut, and in its devious windings of sixty-three miles through this division, receives before reaching Nellumboor (on its right bank) the Kella-

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kapoya, Carcoorpoya, and the Shoulayaur; and the Kasimpoya on its left bank, N. E. three miles of Nellumboor is a formidable river which is fed by innumerable streams rushing down from the crest of the Neelgherry and Koondah mountains; the union of these meandering through forest, forms one considerable river which runs north of Nellumboor, winds W. S. W. two miles, and receives the Coorumpoya on the right, which rises on the Wavoot range of mountains to the N. W. The Koodrapoya on the left bank, rising in the Koondahs and ridges south of it in the Wullavanaud talook; it then runs W. S. W., winds gently north of Mombut, in the same direction north of Yeddamunna five and a half miles, with conspicuous serpentine windings, receiving in its course several smaller streams; the river now broad runs W. and N. W., Ariacode on the left eight miles, and on the opposite bank receives a stream rising in the Punnycode hills; it now proceeds N. W. seven miles, very winding, Moppuram on the left, and on the opposite bank it receives the water of the Koodiatoor river; it winds S. W. four miles, receives the river flowing E. of Tambercherry on the right and one mile further in the same division is Ariacode in the Shernaud talook on the left bank. This river is navigable all the year to Ariacode, but boats go up with ease to Nellumboor during the rains; small boats at this season go further up to the Yeddakurra farm, twelve miles N. E. of Nellumboor, attended with much labor and difficulty, owing to the rapidity of the stream, and the numerous rapids occasioned by the rocks in different parts; the bed below Nellumboor is from 180 to 250 yards wide, banks bold, with wood and luxuriant groves of areka, and other trees at intervals. The Tiruvangady river flows W. S. W., south of Munjairy; it has several serpentine windings, and after a very circuitous course for twenty-two miles passes into the Shernaud talook, and in its course for some distance defines the limit common to the Wullavanaud division; its bed is excessively narrow and rocky, with high banks fringed with wood and groves of areka, &c. at intervals: teak and other timber, also floats of bamboos are propelled down all these rivers to the depôt at Baypoor and Callye near Calicut. Several extensive valleys of cultivation intersect the country in the south and west portion, the waters from which forming large nullahs, after meandering for some miles, empty themselves in the rivers of Baypoor and Tiruvangady.

More than one-half of the superficial area of this division is overrun with woods, hills and mountains. The eastern portion compre-

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hending the Nellumboor valley, formed by the ghauts and Koonda mountains, and the Wavoot range extending to Checkumullay, a high saddle hill N. E. of Ariacode, contains teak, and other timber in inexhaustible quantities, and it is mostly from this valley that the largest timber is obtained. In the western portion the ridges running in different directions are here and there plain, the greatest portion covered with inferior wood and low jungle. The most remarkable hills in the interior are the Pundaloor and Oorattumullay ranges. The ridge of the former defines the limit common to Wullavanaud, and that of the latter from the Shernaud talook, the whole covered with dense forest. Paulamulla east of the Pulhanoor bazar one mile, is a conspicuons sugar loaf, commands from its summit an extensive view of the surrounding country; besides the above there are many others too numerous to be mentioned.

Elegant avenues are planted along almost all the roads intersecting the country in all directions; the one from Calicut enters the district two miles W. N. W. of the town of Koondoty, proceeds east, extensive fields on the right, to Neddyerpu, and winding over heights crosses the arm of a field to Poolahnoor, a mosque and street of bazars, then through a defile, between hills, crossing extensive fields to Munjairy bungalow, twelve miles from Koondoty. It is an elegant road, and will admit of wheel carriages thus far. It now proceeds south, and passes a field, ascends and descends to the Tiruvangady river, and the Anakyum ferry, on crossing which it enters the Wullavanaud district two miles from Munjairy; another road to Tiruvangady strikes off from the former one mile from Munjairy, crossing fields, ascending and winds considerably over heights, descends and crosses a deep nullah over a temporary bridge to Mullapuram, a street of shops many of them in a ruinous state, S. W. six miles from Munjairy; from thence it continues W. over heights, descends to a nullah on crossing which it enters the Shernaud talook. Another road towards Angadypuram leaves the Punaloor hill on the right, meanders S. S. E. one and a half miles crossing a field, and passes over low hills, winds E. four miles, and crossing several stripes of paddy land to Nellykuth Ungady, a small bazar, passing a large stream to the east of that place, enters the Wullavanaud talook; this is an indifferent road, will admit only of laden cattle and foot passengers. The inland road from Calicut enters this district on passing the Baypoor river to Pudiangady or Moppuram; from thence it winds east considerably, the river on the left, crosses numerous fields and nullahs, country very undulating,

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to Ariacode six and a half miles; from thence south over undulating ground two miles. Here the road to Yeddamunna is carried off to the left, the road now descends, crossing fields at intervals, passing through the deshums of Kurracoon, Yettoor, Puputta, Kurruvampuram; to Munjairy S. E. eight miles; this road winds considerably, some portion is very good, and the whole space very undulating, will however admit of wheel carriages with much difficulty. The road to Yeddamunna going off from the former, winds east, then north over heights by the deshum of Irravutty, crosses a deep nullah, banks exceedingly steep, waves over open ground, low hills on the left, to Pullyperumunna, then over heights, descends and crosses a deep nullah in fields to Yeddamunna nine miles from Ariacode; there is no avenue along it, but one lately planted, and the road has been much improved since. From Yeddamunna the road N. E. mostly through wood, the river winding on the left, crosses two streams at this confluence with the Baypoor river (these are only passable in boats during the rains) to Mombut three and a half miles; from Yeddamunna the road continues to run east by Chunturity to Kupeel, partly through wood seven miles, from thence north, crosses the Koodra river, high banks, it then winds through forest to Nellumboor: the road in this space is tolerable and partly lined with one avenue. The road towards the Carcoor pass proceeds E. three miles to Moderycullum, at first through a long stripe of cultivation and afterwards through forest; it now proceeds through wood crossing fields, a nullah, and marsh to the Kurrimpoya river north one mile, on crossing it, passes Pullycoot, a few fields, then again in wood to the Ponpoya river three miles, both large rivers about 180 yards wide, and passable only in rafts or boats when full, ascends and descends Nuddapoya fields on the right, runs N. E., crosses several stripes of marsh in forest, to the Yeddakurra farm and fields on the right; here it crosses the Kellakapoya, a small river three and a quarter miles, its course again through wood, the Carcoorpoya seen on the left, is twice crossed to the Yeddum or pagoda, distance from the Kellakapoya four and three quarter miles; from the Yeddum the road descends into fields and marsh, crosses the stream three times in the space of three miles, then in wood commences the ascent; at first gentle, then ascending and descending on the brows of the mountains, crosses innumerable mountain streams to the summit of the Carcoor Pass, the whole way through dense forest. This road from Nellumboor to the foot of the Pass, has of late been

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improved, and the Pass itself opened by a few companies of pioneers during last year. The road from Munjairy to Wundoor passes over plain undulating ground, crossing several stripes of cultivation, passing through the deshums of Tircullumcotoor and Tiruwelly, then west crossing a narrow and deep nullah, ascends heights, road continues through wood, descends to the pagoda at Wundoor on the left, passes to the umshum cutcherry on a plain height half a mile east of the pagoda, the whole distance from Munjairy being thirteen miles. A new road has been lately cut towards Nellumboor, passes over heights to Kautmoonday, joins the main road from Mombut near Chenturity N. N. E. three and a half miles. A tolerable road from Wundoor runs north, crossing fields at intervals, joins the main road at Kapeel three miles, is shaded by an avenue all the way. The road from Ariacode to Koondoty passes through the deshums of Mundembrah, Kuddungaloor, Keechainy, Muduwulloor, S. W. nine miles to Koondoty; it is a very rugged one passing over hills, and crossing over several stripes of cultivation, and a large stream north of Kuddungaloor. Another road from Koondoty to Moppurum runs north by the deshums of Nanjalur, Burdacaud, Omarur, Cheruvoyoor, and crossing low plain hills descends to Pudiangady, also called Moppurum, on the right bank of the Baypoor river eight and a half miles, it winds over plain heights and crosses cultivation at intervals: it, as well as the former, will admit the passage of laden cattle.

Iron ore is found in different parts of the district, but very little of it is smelted, there being only eleven places for working it. Gold ore is found in all the beds of the rivers and streams running down the ghauts into the Nellumboor valley; one of the principal branches of the Baypoor river, is literally called the Golden River, from an idea that the largest portion of that mineral is washed down with the stream during the rains. The manufactures consist of some cloth of an inferior quality. Oils from the cocoanut, castor and sessamum, jaggary and arrack from toddy in small quantities.

The soil of the western portion, and on the heights, is red intermixed with gravel, and the laterite or pudding-stone; in the valleys of cultivation, it is a rich brown, and very free of gravel, as are also the stripes of cultivation far in the interior. In the forests and mountains it is a rich black mould, owing to the constant falling of decayed leaves and rotten wood; granite is conspicuous on the face of the ghauts and the mountains to the

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east, where it is seen to form a perfect barrier, falling in precipices almost perpendicular. In the interior naked rocks are seen in many parts, but they are almost all a harder species of laterite. The productions generally are rice of various sorts, several species of dry grain and pulses; cocoanuts are abundant and thrive only in the western portion; pepper is produced, but not in such abundance as in the districts along the coast; the supary is cultivated in large quantities about the central parts, and grows luxuriantly on the banks of all the rivers; very little of it is observed to the east of Nellumboor; timber of many descriptions, also bamboos. Honey and bees' wax are the productions of the mountains and forests.

The population of this division is split into fifty various castes, containing 59,129 individuals, the moplah and nair castes predominate, the former forming almost one half of the whole population, and the nairs and higher castes including Nambury brahmins, about one-fourth of the remainder. The Punnians, a low caste, are the slaves of the Tirupad. There are about 1,000 of these individuals, who are cultivators, and are also employed in cutting and floating timber down the numerous streams to Nellumboor.

The domestic cattle are bullocks, cows, and buffaloes, the latter are strong and employed in the field; there are no sheep and but few goats. The wild animals are elephants, tigers of various kinds, byson, elk, spotted deer, hogs, and many other animals.

Description of the Bettadanaud Talook.

This district is bounded to the S. by the Ponany river twenty-two and a half miles, which divides it from that of Kurtanaud; to the S. E. by the Neddunganaud talook for nine and a half miles; to the E. by Vullavoornaud for seven miles; to the N. by Shernaud twenty-two and a half miles, and to the W. by the seacoast seventeen and a half miles; giving a perimeter of seventy-eight and a half miles; its figure is very irregular, its greatest length from N. W. to S. E. twenty-four miles; and contains a superficial area of 173 square miles. Fifty-one occupied by wet cultivation, the remainder composed of low plain heights, and valleys; the slopes are in some parts cut into terraces, and cultivated with rice, and various dry grains; along the coast, and for three miles, in a parallel to it, there is a dense wood of cocoanut and other trees, thickly studded with inhabitants principally of the moplah caste. The census of 1827 gives 340 individuals to the square mile.

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This district is divided into thirteen hobellies or subdivisions, these again into thirty umshums, containing 181 villages denominated deshums, scattered all over the face of the country; the houses of the inhabitants are separate from each other on the skirts of the fields under the shade of luxuriant groves of productive trees.

There are three considerable towns in this division: that at the capital Tullacaud, but properly called Pudiangady, lies S. twenty-three, E. twenty-eight miles from Calicut, and E. two and three-quarter miles from the sea, it consists of a long street of moplah shops, a large mosque and revenue cutcherry are the only buildings of note. The high road from Calicut passes through the town. There is a substantial bungalow for the accommodation of travellers two miles S. E. in an open plain. Tannoor N. thirty-three, W. seven and a half miles from the capital, is a considerable seaport town, where there are a great number of mosques. Some of them very large, some of the houses forming bazars are very substantial. To the E. separated by a small stream and marsh is another portion of the town with a very dense population of moplahs. S. forty W. three miles of Padiangady is Kotye another moplah town and bazar, on the right bank of a small river which communicates with the Ponany; here are several mosques; the one on the right of the road to Ponany is of some note.

Peeroony N. sixty-five, W. three miles from Pudiangady has a few bazars and a mosque, also a bungalow to the N. for travellers; a stream runs on the W. between the bazar and the sea; from the latter it is about 300 yards. In the interior there are no towns or compact villages. Pagodas or umbalums, nambury illums are in great numbers at many of the larger deshums as Tirrunavoy, Adamed, Pullypuram, Poneganoor, and two of them, S. E. three miles of the capital. Very few of them are of any celebrity.

The cultivated valleys running from the heights, in the central parts of the district, have all of them natural streams, which irrigate the fields. During hot weather water is conveyed from the main stream by temporary dams made with wooden piles, covered with brushwood and mud. The principal river is the Ponany, rising in the Aunamulla mountains in Coimbatoor; it forms the southern limit of this division for twenty-two and a half miles to the sea; its bed is sandy and the water very shallow during fair weather; it widens in its course from 400 to 1,300 yards, and is navigable all the way during the rains. Boats of burden go up to Tirrunavoy on the right bank eight miles from the bar at all seasons; in this space

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are many moving islands of sand, consequently the channel for boats alters yearly and makes the navigation tedious. The river of Kotye also called Tirrupoonaypoya, has several sources in the high lands of Vettacherra and Addacherry, these join N. N. W. of Tirrunavoy within three-quarters of a mile of the Ponany river, its course is then W. one mile, E. of Pudiangady, winds N. of it three miles, then takes a southerly course, and comes again W. of it within three-quarters of a mile, from thence it runs S. S. E., winds W. to the town of Kotye, and here it becomes about 200 yards wide; it then runs S. S. E. almost in a parallel with the sea, separated from it by a sand bank, and joins the main river N. of the village of Ponany: from its source to the Ponany it is twenty-seven miles, and is affected by the tide for fifteen miles, which makes it navigable for a large portion of the year to Tirrunavoy within five miles of its source. Another small river is formed by several rills rising in the low hills N. of Addacherry, flows N. and forms an extensive inundation during the rains, a mile S. W. of Tirrungady then W. and N. W. joins the Tirmundgady river, three and a half miles W. of that place at a considerable bend. In a parallel and near the sea a small rivulet runs E. of Peeroony and Tannoor, communicates with the sea. N. N. W. three miles of the latter is a marsh which with the fields on either side is totally inundated during the rains.

The country for about four miles inland is flat, then rugged, composed of high table-lands apparently with very few inequalities, the whole of the surface quite bare of vegetation, with the exception of a few trees here and there towards the Cherpulcherry river, which forms the limit for four miles to the S. E.; these table-lands are detached and much higher, and the slopes covered with wood.

The principal road enters the district three miles N. of Tannoor, passes E. of that town and crosses a small river (a ferry) to Pudiangady. From Tannoor seven and a half miles it then runs over open slopes, crossing wet cultivation at intervals by Tirrunavoy; the Ponany river on the right all the way to Kutiapuram, and crosses the river at Kongapoya Cuddava or ferry, distant from Pudiangady eight and a half miles: this is an elegant road lined with trees almost the whole way: the river is fordable during the fair season. From Tannoor another road proceeds to the S. along the beach, crosses a small piece of water, Peeroony five miles, then to Kotye, a large moplah town four miles from Peeroony. Over heavy sand and one-third of a mile from the sea, then over a spit of sand be-

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tween the Coont and Kotye river to Ponany, crossing the river five miles from the town of Kotye; the above roads will admit of wheel carriages; the former proceeds towards Paulghaut, the latter by Ponany to Chowghaut and Cochin. A tolerable road runs S. S. E. six miles to Pullypuram umbalum on the banks of the Ponany, passing over extensive paddy lands all the way from Pudiangady. A road of some note in former times partially planted with trees, proceeds from Tannoor S. E. over the high flat lands in the interior, passes through the deshums of Tanara, Wakatoor, Vulliacoon, and eventually crosses the Cherpulcherry river to Tiruvagapuram in Nedunganaud; it is in some parts a very good road, here and there with an avenue; its descent to Tannoor is steep and rugged, will admit of laden cattle with difficulty. From Tannoor to Tiruvagapuram is twenty miles. From Vuliacoon a path strikes off to the left partially lined with trees and proceeds to Vengaud four and a half miles N. E. in the Vullavoornaud talook.

Iron may be obtained from the laterite or pudding-stone, which is seen all over the face of the country. The manufactures are cloths of different, coarse qualities. Oils extracted from the cocoanut, sessamum, and castor nuts, jaggary and arrack from toddy.

The soil on the high land is in general red with gravel, and in most places very rocky; in the valleys it is a deep brown inclining to black; near the coast and for some distance it is a fine loose brown sand, calculated for the growth of the cocoanut and other productive plants, also vegetables. The productions are rice of several kinds, some of which is grown on the slopes of the low hills in the interior, which are cut into terraces. Several dry grains but in no quantities: cocoanuts, jacks and other fruit trees are reared in the gardens.

The census of 1827 gives a population of 59,493, which is 340 to the square mile; one-seventh are brahmins and nairs, and almost one-half moplahs; the remainder composed of about forty different castes, as smiths, washermen, and artificers, but the larger portion consists of the prædial slaves, as churmurs, polians, parriars, &c.

Very few wild animals are seen in this division: a small tiger or leopard, wild hogs, hares, &c. are not unfrequent in the eastern portion, the country generally being open, admits of no cover. The domestic animals are diminutive. Sheep do not thrive: small flocks from Coimbatoor pass on their way to Calicut and other places.

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Description of the Wullavanaud Talook.

Wullavanaud next to Wynaud is one of the largest divisions in Malabar; it is bounded on the N. by the Ernaud talook for sixty-nine miles, by the crest of the Koondahs to the N. E., which defines the limit in part, to the E. by the Coimbatoor province, and the Neelgherries for sixty-nine miles, the Maundaur and the Bhavany rivers, also the high ridge of mountains extending from Periakunjy to Maymudy peaks defines the limit on this side; to the S. by Neddunganaud for fifty-six miles, the Cherpulcherry river being the limit for twenty-three and a half miles; to the S. W. and W. by Bettadanaud and Shernaud for thirteen miles; the boundary in this space runs waving on plain heights to Chapul Angady on the W. at which is the junction of Wullavanaud, Shernaud, and Ernaud talooks; its whole perimeter is 198, and area 875¼ square miles, including several insulated estates belonging to Neddunganaud, sixty-three square miles is under wet cultivation, 730 is occupied by hills, mountains and wood, which including the Koondah mountains and Uttapady hills forms the eastern portion of this division, the remainder by plain high slopes in the interior. Its greatest length from east to west is forty-eight miles, in figure very irregular. The population gives sixty-six individuals to the square mile, the number may be estimated at 200 to the square mile in the populated portion of the district.

This division is subdivided into thirteen hobellies, and these into twenty-seven umshums, and contains 152 deshums or villages; besides the above there are twenty-eight hamlets inhabited by the Buddagurs on the eastern slopes of the Koondah mountains, also thirty-nine hamlets on the Uttapady hills N. E. of Munnar, inhabited by a race of people called Moodomars, who emigrate from hill to hill every third or fourth year; their head-men are a few Gonds people of Coimbatoor, and permanently reside at Hugley, Chunagum, Oomuttonpuddy, and a few other places.

Angadipooram the capital, is situated in the Paranthullamun deshum, and Munnar are the only considerable towns in this division. Several roads communicate at the former; here is a tolerable bungalow and cutcherry, on the N. half a mile is the town consisting of one street; the inhabitants are people of the eastern coast, principally chetties or merchants, who settled here when this place was established as the head of a zillah; to the N. W. of the bungalow are the remains of a jail, but no remnants of the houses built

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at the time are now to be seen; one and three-quarter miles W. N. W. is a Bhuggavuddy pagoda on a rising ground amidst a grove of trees; it is a temple of great sanctity and celebrity. An annual festival takes place, attended by a very great concourse of the surrounding inhabitants. To the W. on the plains are the remains of an old square fort, the road to Munjairy now passes over the ruins. A weekly market takes place in the town, and is frequented by people from the coast and Paulghaut. Munnar has been some years ago a town of note; the ruins of a great many substantial built shops indicate this: at present it is very populous; the inhabitants are generally from the eastward and Paulghaut, the streets narrow and irregular. To the west of it half a mile is the temple of Arracoorchy not far from a small river; it is one of some sanctity: an annual festival is celebrated here. Munnar lies N. eighty-five, E. sixteen miles from the capital. Purriancand, N. fifteen E. six miles, is a street of moplah shops on the banks of a mountain stream, with a mosque at the west extremity, the only edifice of the kind to be seen for several miles around, and romantically situated in the midst of a forest. Chapanul Angady, N. eighty-five, W. twelve and a half miles, and Charoocolum Angady N. eighty-five, W. eight miles, are two streets of moplah bazars; the former has been already mentioned in the description of Shernaud, the houses on the south side of the street belonging to that district: the latter contains only a few houses on the road. Oorampooram, N. five W. seven and a half miles, is the remains of a large town; it now contains a few shops, and a mosque also in a decayed state on the left bank of the Kokoyetode. Golden ore is found in the bed of this stream above the confluence of two rivers a mile to the E. of the bazar. Pootangady S. eighty, W. two and a half miles from Angadipooram, are two large mosques and moplah houses. These edifices are built of good materials; and one of them appears to be of modern date; the whole of the deshums or villages in all directions, are on the verge of the paddy cultivation in the valleys, the houses scattered and under groves of trees. There are some rude mud and stone fortifications, which served as a refuge to the moplahs, when the country was in a state of rebellion; these are to be seen south of Cootoowarra called Pailoocotah, and in the Colutoore umshum called Omerpurawam, perhaps more intended as places of security than for warfare.

There are no lakes or tanks in the whole of this district. Small reservoirs are not uncommon in the vicinity of pagodas, water being

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in great plenty in all the cultivated valleys, and in the rivers all the year round. The only river of note is the one which divides this talook from Neddunganaud; it has no less than five principal sources in the hills north and east of Munnar; these smaller branches wind through the low country, join and become one large stream at Korampola, when it proceeds S. W. winding considerably to its confluence with the Ponany in the deshum of Currianoor. The Tiruvangady river so called has its sources in the mountainous valleys formed by the ridges running south from the Koondahs; one of these runs south of the Towoor deshum, and forms a junction with another mountain stream one mile E. of Orawampooram, after meandering principally through forests for sixteen miles, it is called the Kokoyetode from the circumstance of golden ore being collected in its bed. The other stream rising in the Kunjycomboo peak, a high table mountain, flows seven miles; S. W. to Yedanadkurra on the right bank, then W. N. W. ten miles, meandering through forests and fields, through the deshums Molantoor and Keelatoor, joins the Kokoyetode before mentioned. The main river now runs N. W. four and a half miles, leaves Oorampooram on the left to Nellykuth Angady in Ernaud on the right bank; here it receives a small stream formed by water flowing from the fields on the north, it then meanders W. N. W. to the Annakium ferry, on the high road from Munjairy to Angadipooram, Pulliacurpully deshum on the left bank: then W. two miles S. three miles, W. and N. W. five miles, Mullapooram Angady on the right bank: in this course which is very irriguous, it forms the limit in common with Ernaud, it then winds S. S. W. one and a half miles, enters a portion of Ernaud, then N. W. two miles, enters Shernaud talook. The Puriankad river is formed by the junction of three mountain streams, having their sources in the ridges of the Koondahs, two and a half miles north of Puriankad, it enters the Ernaud talook; one branch of it flowing east of that place; a stream rising in the Pranacode hills, runs north of Angadipooram, flows through the deshums Punnagankurray, Thamapooram, Kachenykad, and Kuddangcotah, joins the Tiruvangady river; in its course of fourteen miles it receives several nullahs from the valleys of extensive cultivation on either bank, and passes through an open country all the way. Another stream rising on the hills N. E. of the Kootla deshum, flows by Wuddakunkurray, Kurkadum, Kudunmullay to Pulliaurpullay, joins the Tiruvangady river; in its devious course of nine miles it meanders through extensive cultivation.

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The largest portion of this division consists of high table-land, between the valleys of cultivation mostly composed of plain flats with ledges of rocks running round the sides above the valleys, that portion to the N. E. the surface is more even and much of the heights covered with wood; here and there are a few plain heights interspersed: the prominent hills in the interior are Pundaloor N.W. Pranacode N. E. as seen from Angadipooram; they run N. W. and S. E. their ridges being about eight miles in length and very lofty, with their slopes occupying a considerable space covered with high wood to their very summit. Annangaut hill on the south, the summit is an extensive flat and plain, but the slopes are covered with jungle to the crest of the Hill. The north and east portion is occupied by the Koondah mountains, and the Uttapady hills covering almost half of the surface of the district: (for a description of the Koondah mountains, and other particulars, the description of the Neelgherries may be consulted.) To the west of the hamlets on the eastern slopes is what may be termed the high table-land of Koondah, no part being inhabited; the soil is the same as the lower slopes, but the winds which prevail during the S. W. monsoon, blow with such violence, that the woods on this elevation exposed to their fury lay over, and this only can be assigned as a reason for the inhabitants not residing on them. There are, however, three Todur Munds for penning buffaloes, only frequented by this race during fine weather; the high land affording very fine pastures, the table-land itself occupies about eighty square miles, and is intersected by streams in every direction, between them ridges, some of them lofty, but generally plain, the woods being confined to either side of the streams and ravines, a great deal of marsh is to be seen in the valleys: the source of the Bhavany is on these hills, from whence the river runs south. On the slopes to the east are no less than twenty-eight hamlets, consisting of from four to twenty houses, and a Kotur village; the population may be estimated at 500 individuals including children, but no account has been obtained from the public servants of the existence of these mountainers, till within the last few years. The Uttapadies are about 4,000 feet below the surface of the Koondahs; several branches forming the Bhavany meander over this surface as well as other mountain streams, with ridges some woody, running between the slopes are cultivated with rice and several species of dry grain by the Moodomars, a low class, who are the cultivators; a few Gonds, inhabitants of the Coimbatoor country are the renters, and the hamlets occupied by them in various parts are stationary; all the others are

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moved from one spot to another every third or fourth year, to commence opening and cutting down the wood for the purpose of cultivation; there are no less than thirty-nine hamlets on these hills consisting of from two to fifteen houses: in this space there are several lofty hills rising above the lower ridges; those most conspicuous are Mulheshurr, with two peaks, one being bluff, the other from some situations is a perfect needle, and north of it is Chundumullay with three tops all about the same height, and on the same range, is connected with the Koondah; to the west is Kurramullay, a bluff rock, seen almost due north from Munnar. On the range to the southeast which divides this rock from Coimbatoor, are Periakunjee, Vellymullay, and Maymoody peaks, the latter to the E. is conspicuous for a square pillar of granite of great height. The Bhavany river running south from the Koondahs falls in cataracts to within two miles west of Uttapaddy, it then winds northeast and north of Ettapaddy, south of Vaylumpuddy; south of Munyoor, receives a powerful stream rushing down from the Koondahs, and N. E. three miles of the above place it receives the Sherria Bhavany rising in the valleys of the mountains to the south; it now becomes a river of some magnitude, proceeds N. E. winding, Soonduputty on the left bank, runs in the same direction for a few miles and receives the waters of the Munnar river rising in the hills south of Murkutty peak; in its course rushing down the Koondah and Neelgherry mountains, receives several large hill streams on either bank. Shulypurae E. S. E. five and a half miles from Munnar has three peaks; the northern one being remarkable from the display of several high conical rocks, the ridge runs S. S. W. and the whole covered with dense forest; the country from Munnar to the summit of the hills north and east of it is a high forest yielding teak and other timber, which is floated down the mountain streams towards Kurimpola, and from thence to Ponany, during the rains.

Several military roads meet at the capital from different quarters, but none of them are well adapted for wheel carriages. The road from Calicut viâ Munjairy enters this district on crossing the Tirruvangady river at Annakeum ferry, runs S. E., the Pundaloor hill on the left, and a stripe of wet cultivation and houses on the right, by the deshums Pulliacurpully, Kuddawamunna, crosses a nullah with a temporary bridge thrown over it in the Kurkadum deshum, it then winds over heights ascending, and descends and crosses a stream two and a quarter miles from the bungalow at Angadipooram; some parts of this road are tolerable and partially lined with an

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avenue ; from the bungalow it continues S.E. ascending and descending, crosses several small nullahs to the Tuthookuddavoo ferry, across the Cherpulcherry river, and enters Neddunganaud, distance from Angadipoorum bungalow six miles ; it is lined with a shaded avenue. Another road from Puttomby strikes off from the former three-quarters of a mile south of the bungalow, proceeds south, partly through extensive cultivation, then over heights, cultivation on the right three miles, then winds S. W., winding three and a quarter miles to Ponangatole deshum and crosses the river into the Neddunganaud division. The road from Tirruvangady enters the district at Chupanalangady ; it proceeds over heights waving easterly, and about midway crosses a stream, and extensive cultivation in the Porukatry deshum. On approaching Angadipoorum the road has a long but gentle descent, the whole distance being twelve miles, on the whole a very good road, but difficult descents and ascents ; it is all along lined with a shaded avenue ; this road proceeds easterly winding south of the Pranacode hills, passes through the deshums of Futchanalkurray, and Koomurampootoor ; in this interval crosses three streams to Munnar, eighteen miles from Angadipoorum bungalow, waving principally on heights, crosses cultivated fields at intervals, the road undulating is lined with an avenue most part of the way. From Munnar it proceeds N. E. through forest to Tenkurray, a barn, and considerable fields of wet cultivation, E. N. three and a half miles in the same course through forest, crosses a number of rocky ravines, a short but steep ascent to the summit of the Pass three miles, then again through lofty forest winding to Uttapady, a ruined pagoda, on the right bank of the Bhavany river three miles, then along the river to Sharumangady, E. N. E. three miles, a halting place for travellers and cattle ; from thence the road crosses the river, proceeds along the left bank, viâ Valumpuddy and Sherrakuddavu three and a half miles, winds north, passes through hills, descends and crosses a branch of the Bhavany to Chunagum two and a half miles ; here commences the ascent, first easily, then steep to the summit of the Talapoya ghaut five miles ; it then runs over a mountainous tract ascending and descending, crosses two mountain streams, and gently ascends to Keelkonda hamlet four miles, from whence mountain paths proceed to the Neelgherries and the surrounding hamlets. A bullock road from Sharumangady proceeds N. E. over the slopes of a low range to Samunthora eight miles ; here it crosses the Sherra Bhavany to Gopanairy, a compact village, the inhabitants belong to Coimba-

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toor two miles; these paths generally are through wood, and during the rainy season are infested with elephants. A tolerable avenue road from Munnar to Paulghaut goes S. E. on crossing the river, it passes through two low wooded hills, then over plains and cultivation at intervals in the Tricalur deshum, crosses another hill stream three miles, then by the deshums of Thutchumpaurae and Yeddacoorchy in forest to a hill stream three and a half miles, being the limit common to Neddunganaud, and two miles south of Shulapaurae hill, another road from Angadipooram towards Munjairy, leaving the Pundaloor range of hills to the left, proceeds north winding through the deshums of Maharcherry and Purnbur, then by a Pass on low hills descends to the Nulloor deshum, then over heights descends and crossing a field reaches Ooravampooram, a few bazars ten miles from Angadipooram, crossing a small river on the north it winds waving, passes through Cuddacherry fields and heights, descends and crosses a small stream to Nellykulangady in the Ernaud talook (it is partially lined with an avenue) three miles. A market road strikes off two and a half miles from the high western road, proceeds to the S. W. passing through fields, ascends low hills, winds over them, descends into the Coolatore deshums, passes extensive fields, and over heights, descends to the Vengaud deshum, ascends, and passing through low hills descends into the Erroor deshum of the Bettadanaud talook, distance from Angadipoorum ten and a half miles, this is merely a foot-path, and the line of road is marked out by a few trees, in the Coolatore and Vengaud deshums, the avenue is regular. Another road proceeds to the north from the capital, winds E. N. E. through the deshums of Kokuth, Pullycooth, Vengoor, Chemmuny, crosses a small river to Mailanttoor, distant eight and a half miles ascending and descending over heights, and crossing stripes of cultivation at intervals; from the latter it winds over heights, extensive fields on the left, crosses another mountain stream two miles, to Toowoor two and a quarter miles, where it ends, being in all twelve and three-quarter miles from Angadipooram; this is a tolerable road and is generally lined with trees. A road to the eastward strikes off from the former in the Vengoor deshums four and a quarter miles from Angadipooram, it meanders E. S. E. by Kupeelangady in the Vellatoor deshum, passes through Allunelloor and Kotapudeum deshums, crosses a small hill stream and fields, and joins the southern road from the west in the deshum of Koomarampooram fifteen miles from Vengoor; this is a very good road lined with a shady avenue,

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it runs over plain heights; none of the above roads, from the undulating nature of the country, will with safety admit of wheel carriages, are only frequented by laden cattle and foot-passengers. Uttapaddy is the only Pass through the mountains to the east. A path and Pass up the Koondahs south of the Anginda peak is partly traced to Toonoor, it being now but seldom frequented by tobacco smugglers, on account of the dangers they have to encounter from elephants and other animals, also the difficulties of ascending and descending numerous ranges of hills and woods for fifteen miles.

Iron is smelted in many parts of the district, there are several furnaces in the Parunthullamunnam deshum on a large scale. Gold dust is extracted from the sands in the bed of the Kokoyetode east of Ooravampooram in small quantities; from this circumstance it is conjectured that this valuable mineral may with labour be obtained in all the streams that flow to the westward, within a few miles from the foot of the mountains. The manufactures are cloths of various textures, but most of it is obtained from the east and Paulghaut; iron pots and pans used as cooking utensils are made principally in some deshums in the Pundikad hobelly to the N.: these are exposed on the market days for sale at the capital.

The soil of the cultivated valleys is a rich brown, in some parts of the interior inclining to black; in those situations overrun with thick forest, it is black mould, owing to the constant accumulation of decayed trees and leaves; on the lower hills to the west, it is red and very gravelly. The productions are precisely similar to those in Bettadanaud; in all the mountains and forests honey and wax in large quantities are obtained. The produce of the Koondahs are wheat, barley, poppy, garlic, and several dry grains; and on the Uttapaddy hills, very little coarse rice, the produce being principally dry grains of various kinds, also vegetables, pumkins, cucumbers, &c.

By the census taken of the population in 1827, the whole amounted to 83,044. This would give 200 individuals to the populous portion, being only one-half of the superficial area of the whole district.

Domestic animals are diminutive, and all similar to the districts on the coast. The wild animals are elephants, tigers of various descriptions, byson, deer, and mountain sheep. On the Koondahs bears roam over the surface of the table-land, and frequently approach to the neighbourhood of the hamlets.

The climate is very similar to the description given in the general account of Malabar, but the squalls from the S. W. are not felt in such force as on the coast. The climate on the Koondahs is similar to

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that of the Neelgherries, the squalls during the monsoons blow with great violence all over the high western table-lands. On the Uttapaddy the variation of the Thermometer is very great at different times of the day, rising sometimes from fifty-five degrees in the morning, to ninety and ninety-five degrees with dense fog, during the rainy season, making this tract very unhealthy, so much so, that the inhabitants of the country about Munnar will not approach them but in the very hottest time of the year, to prevent attacks of hill fever.

Description of the Neddunganaud Talook.

This division is bounded on the S. for thirty miles by the Ponany river dividing it from Paulghaut and the Cochin province to the E. by Paulghaut and the high range of mountains, to the N. by the Wullavoornaud talook, the Cherpulcherry river for twenty-two miles forming the limit, and to the W. by a small portion of the Bettadanaud district; its whole perimeter measures ninety-five miles and contains a superficial area of 286 square miles. In this area fifty-four and a quarter is under wet cultivation, the remainder is occupied by undulating slopes, with detached hills, and by mountains and forests to the eastward, besides several deshums much detached, and situated in the eastern portion of the Wullavoornaud talook, measuring a superficial area of ninety-one and three-quarter square miles, of which fourteen and three-quarter square miles is under wet cultivation; the revenue of these portions are collected in common by the tehsildars of the above said talooks, creating thereby much trouble and inconvenience to the public servant. The census before mentioned would give 290 individuals to the square mile. This district is equally populated, the nairs and higher castes predominate, being almost one-third of the whole.

This talook is divided into seventeen hobellies, these again subdivided into forty-two umshums, containing 150 deshums or villages, the houses scattered and lying on the margin of the wet cultivation in the valleys, which intersect the country in all directions.

There are no considerable towns in this division; a few streets of bazars on the high western road from Paulghaut, at Lakkadykotah, Paulapuram, and Waunian Colunkurray are of some note, provisions being obtained at them by travellers and for whose accommodation bungalows have been erected in their vicinity. A weekly market on Saturday takes place at Waunian Colunkurray; Cherpulcherry the capital, on an elevated plain is of note from the

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revenue cutcherry being held at it; there is also an old bungalow and a couple of bazars, a pagoda of some celebrity, and a palace on the road to Puttumby W. one mile from the bungalow. Cherpulcherry was once the station of a collector. Karimpolay N. seventy, E. seven miles from Cherpulcherry, is situated in a winding on the right bank of a river, is noted for a celebrated pagoda, it is also the residence of one of the senior Samury rajahs. Triallacode, on the high road to the eastward, lies four miles from Cherpulcherry, there is a pagoda and street of shops kept by chatties, also a dense population around it and five miles to the E. of the former, also on the road are a few shops and a pagoda to the N., Puttamby S. fifty-eight, E. eleven miles from the capital, on the right bank of the Ponany river, has several temples in its vicinity, and is the residence of some wealthy Nairs, here is also a bungalow for the accommodation of travellers, in the left bank of the road on a plain slope; and Yeroopa S. four, W. eight miles, S. of the high western road, is the residence of the Kavalapad Nair, near the site of a temple of much celebrity. A few bazars lining the road in the deshum is called Coonaturrah Ungady. Near Tootacuddavu, a ferry across the river on the road to Angadipooram is a pagoda of celebrity on the left bank three miles N. W. of the capital. These temples are so numerous under the appellations of bhuggavuddy, umbalums, and cauvs, that every deshum has its deity.

There are two rivers of note in this division; the Ponany which limits it on the S. has a broad sandy bed; it is navigable for small boats during the rains, and some time after; in going up they are generally dragged, and run down with the tide; it has generally a small stream throughout the dry season, and in every part is fordable. The Cherpulcherry river to the N. divides this division from Wullavoornaud, rises in the mountains to the east of Munnar; it is navigable for small craft, from its confluence with the Ponany, at Currayanoor in Bettadanaud, all the way to Kurrimpolay for thirty-four and a half miles, during the rains, and to Tootacuddavu ferry twenty-three miles throughout the year, within three miles of Cherpulcherry, the width varies from 2 to 400 yards, the banks are high almost the whole way, and studded with groves of areka and cocoanut, under the shade of which the houses of the inhabitants are interspersed. The bed of the river is in some parts very rocky, especially to the E. of the ferry abovementioned. A large stream in the eastern portion, which has its source in the mountains N. W. of Paulghaut, meanders through the following deshums,

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Wudacherry, Vaingacherry, and Molunjoor; it runs W. to the latter place, turns abruptly south, joins the Ponany rivers one and a half miles N. of this confluence. The high road passes over a substantial stone bridge, called Wotupallam. West one mile of the above confluence, another large stream joins the main river; it rises S. of Cherpulcherry, and meanders S. E. through extensive cultivation. Another small stream rises in the Poraturry hills, flows S. meandering through fields, joins the Ponany on the W. of the deshum of Wodamacoorchy: a bridge is thrown over it about one mile N. of the confluence. Two streams rising in the Tendulla and Ramagurrah hills N. of Puttamby; one runs S. W. and joins the Ponany, in the Koodamunda deshums, the other flows to the W. through extensive cultivation, falls into the Cherpulcherry river three-quarter of a mile S. of Teruvagapura. A small stream formed by extensive branches of cultivation, has its principal sources about Panty Mullay, a single high black rock, flows W. N. W. and E. of Cherpulcherry, from thence, N. and joins the Cherpulcherry river, one of the principal branches of the above river, rises in a valley of the mountains N. E. of the Kulhadycode peak, flows W. partly through fields, joins the main stream E. quarter of a mile to the Kurumpola pagoda. Timber is floated down it during the rains.

Many hills are sprinkled over the whole surface of this division. The most conspicuous are Aunangamulla, a lofty range with two peaks to the S. E. of the capital, Kalapara, to the S. Turdulla two plain peaks, Ramagerry a wild wooded group, and the Ongalor plain hills extending to the Ponany river. On the S. W. and E. S. E. is Panty Mullay one solid black rock. The eastern extremity of the district is woody and mountainous, the principal peaks are Kulhadycode, and Poolymulla, the summit of the range is the natural limit dividing this district from Wullavoornaud and Paulghaut. Fully one-half of the superficial area of this division may be estimated hilly and woody, the remainder plain slopes between the cultivated valleys.

The high western road from Paulghaut enters this district one and three-quarter miles east of Lakaddycotah bungalow and bazar, from thence it winds westerly to Paulapuram bazar three miles, continues in slopes, descends and crosses a rapid stream over a bridge two miles, and one mile farther another stream with a bridge, winding over heights to Vunancolumcurra, a bazar and bungalow three miles, the road now winds S. W. ascending and descending to Coonaturrah Angady one and a quarter miles, then W. with several

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inequalities, hills on the left, descends and passes a rapid stream over a substantial bridge four and a quarter miles; it here takes a course W. N. W. ascending gradually to the Ongalor maud or Pass one and a half miles, descends westerly, crosses a small stream in cultivation to Puttumby, a bungalow and river on the left three and a half miles; it then winds through fields, river on the left, crosses the Ponany river 600 yards wide to Turtalla bungalow and bazar in the Kurtanand district four miles. This road is lined the whole way with an avenue of jack and mangoe trees, and will admit of wheel carriages with some difficulty, owing to the rough nature of the ground in parts between Puttumby and Kongaturra Angady. The road from Angadipooram enters this division on crossing the Toothacuddavu ferry and river, winds south easterly over heights, fields on the right, to Cherpulcherry, a few bazars, and an old bungalow, it then winds S. E. leaving the Annangamullay range on the left, by Chengode, a bazar, to Lukkadycotah bazar and bungalow thirteen miles, crossing fields at intervals, also a rugged nullah a mile W. N. W. of Lukkady; this is also a good road, and will admit of wheel carriages. The direct road to Paulghaut from Cherpulcherry proceeds E. by Mancode, Trillacode, to Vilaucon, a small bazar, nine and a half miles, and one mile east of the latter enters the Paulghaut district; this is a tolerable road, but from the very uneven nature of the country, will not admit of wheel carriages. Another good road from the capital proceeds S. W. through the deshum Nellaya, Yaloorvundala, Vullayapoolay, Kulladypettah, to Puttamby eleven miles, crosses four nullahs and fields at intervals; this is also a tolerable road, but will not admit of wheel carriages, owing to the rugged and undulating nature of the ground it passes over. A road from Tutalla crosses the Ponany one mile from the above place, and passes N. N. E. through the deshums of Congoormulla, Vulloor, Curvincaud, and Perrycon, where it crosses the Cherpulcherry river, into the Wullavoornaud district eight miles from Puttamby, a large nullah crosses it, and some fields: a portion of the road running on heights is level and good, but on the whole will not admit of wheel carriages. The whole of the above roads are lined with the jack, mangoe, and other trees, forming beautiful avenues. A market road from Tiruvagapuram to Cherpulcherry passes through the deshums Nadoomeltoor, Mundoorturra, Kellakanelloor, and joins the road from Puttamby at Nelaya: besides it many small footpaths traverse the country in all directions.

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No iron is obtained by smelting. The manufactures are mostly the same as those in the Bettadanaud district.

By the census of 1827, the population amounts to 83,044 souls. The Numboory brahmins, and nairs, and the higher castes predominate. Moplahs, who are numerous in the districts bordering the coast, are only a few compared to the bulk of the whole population.

The cattle and other animals are the same as those in the Bettadanaud talook. Elephants are numerous and troublesome in the eastern portion bordering the mountains.

Description of the Paulghaut Talook.

Paulghaut, the most southeastern district of Malabar, is divided into two divisions, denominated Tennamullapuram, and Wuddamullapuram, and is bounded on the W. by the districts of Chaylayekurray and Trichuvapairoor of Cochin; to the S. by a high ridge of mountains, defining the limit common to Sholagoody: S. S. E. by the sub-division of Chittoor; to the E. by the district of Chittoor; S. E. and N. by the Coimbatoor province, and to the N. W. by the Nedungenaud talook, and forms on the whole a very irregular figure, encroached on towards the E. by Chittoor, to the S. E. the Colungode hobelly makes an indentation between Nemary and Coimbatoor, and that of Wuddakunchairy makes another indent to the S. W. between the districts of Trichuvapairoor and Nemary. Its whole perimeter measures 235½ miles, and contains an area of 695¼ square miles; 120¼ square miles by rice lands, 115 square miles by dry grain; 369 square miles by mountains, hills, and forests, and the remainder by plain waste slopes in the interior. It is one of the most fertile divisions of Malabar and extensively populated, as will appear by the census of 1827, which gave a population of 133,898 souls, and 193 individuals to the square mile; but as the mountains and forests occupy upwards of one-third of the district, it may be averaged at 250 to the square mile. The deshums or villages are generally on the verge of the rice lands, with the exception of a few pettahs and agrarams of brahmins, the habitations being under the shade of groves of cocoanut, areka, jack, and other productive trees. The brab or palmyra is scattered all over the country, which gives it the peculiar features of a woody country, though in general it is plain. The inhabitants are composed of brahmins: those of the eastern coast predominate. Nairs of various gradations, Vellaulers not a few, also Jonagar moplahs as well as several of the lower classes, that of the

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Teers prevail, who are the most valuable part of the community, being both agriculturists and extractors of toddy.

This district is divided into two subdivisions, each under a Native Collector; that to the South is termed Tennamullapuram, the North Wuddamullapuram; about the centre of the latter lies Paulghaut, the capital of the country: together they are again divided into twenty-three subdivisions or hobellies containing fifty-seven umshums, and these again into 150 villages denominated deshums.

Paulghaut, the capital of this portion of Malabar, is a place well known in the history of India, as the key to Travancore; the fort is built of granite and lime; it is a square, each face being 200 yards flanked by square bastions with outworks on the east for the defence of the gates, and surrounded by a deep ditch and glacis, and commands the surrounding places in the interior. There are a few tiled buildings, apparently granaries, and a place of arms in a ruinous state, also a small reservoir of good water. The town lies about 500 yards to the N. and N.W., it is composed of regular broad streets, the houses large and those lining the road being shops or bazars, are tiled. The cutcherry and custom-house are in the centre on the right of the main street, in an open area, that portion to the north is called Sultanpett, inhabited mostly by people of the other coast, here are also a few bazars; to the north is a bungalow and garden, and opposite to it a large square building, once used as a depôt for tobacco. On the skirts of the field is a Roman Catholic Chapel; between the Pettahs on the plain is the bungalow for travellers, the whole on a rising ground and surrounded by extensive fields. The roads here are broad, and most of them lined with trees or avenues. Within a compass of three miles around the fort there are no less than twenty-two gramums or brahmin villages, six of them extensive, the houses substantially built, streets broad and clean, the main one in each east and west, pagodas at the extremities, but generally at the west end. Kulputty, on the left bank of the Kudducoon river, lies N. W. two miles from the fort, composed of broad streets at right angles to each other, and the houses tiled. On the bank of the river there is a celebrated pagoda, and three quarters of a mile from it S. E. is another where an annual festival takes place. S. E. three and a half miles from the capital the village of Codumbah, on the N. bank of the Ponany river, though extensive is very straggling; here is also a pagoda of celebrity, and an annual festival takes place and is kept up for several days. The pagoda of Terrupulhatoor W. half a mile from the above, and on the opposite

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bank is a large temple held in great veneration. Yellupooly to the east six miles, Palapooly three and three-quarter miles E. S. E. of the capital are the heads of hobellies, having each a large scattered population, also a brahmin gramum and pagoda. Kurrugarapoly, a compact nair village, is E. one and a half miles; also Puduherry E. N. E. three and three-quarter miles is more extensive, having a few bazars at it on either side of the high road to the south, and across the fields is a brahmin gramum and pagoda. To the W. of the fort are the following gramums: Perany, Tervullay, Kodundurrapolay and Chundrashuygrapuram, a small pagoda at most of them and the whole situated in a fertile well cultivated tract. Padunagaram S. S. E. six miles is the next mart to Paulghaut; the street is wide and runs E. and W. two furlongs; and at the W. end is a mosque: the Jonagar moplahs are the principal inhabitants; and N. E. of it Palanuggram, a town similar to the above, lies on the left bank of the Ponany river. Kuddavoyoor is a smaller town, lies one and three-quarter miles W. of the above place; at it is an extensive population, also a couple of brahmin gramums with pagodas, the one to the N. W. Karalupuram, here a weekly market takes place, where cattle also are exposed for sale. This is the most populous part of the country next to the environs of Paulghaut, there being four large towns within two miles of each, including that of Tultamungalum dependant on Cochin. Pullavoor, S. S. E. nine and three-quarter miles of Paulghaut, consists of two gramums with a celebrated pagoda within a walled enclosure, lies S. of the above and to the N. an extensive nair population. Goodaloor S. S. E. one and a half miles, Pullacherry E. three miles, and Koonucherry N. W. one and a quarter miles from Pullavoor, are large straggling villages, inhabited by Vellalers: at the two former are gramums, and a few small pagodas. Pullunchuttanoor S. W. four and a half miles from Paulghaut, is another brahmin gramum surrounded by a nair population. Tencoorchy S. S. W. four miles of the above place, with an extensive population, is noted for its pagoda in a grove of teak trees, and to the south is Vellyanchattanur; it is the site of a wealthy nair population, with some fine tanks. Near it is Vellayanur, another gramum of brahmins. W. of Pullenchattanur are the subdivisions of Kuliman and Shoolanoor; the country is excessively wild and rugged, the population scattered on the borders of the cultivated valleys. The places of note in this tract are Kutanoor, a street of Vellalers and Lubbais, who are weavers by profession. Poolymulla Mautoor, and Chembrakolum have each a gramum. Yeddaturra W. N. W. six miles

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from Paulghaut, at the confluence of the two branches of the Ponany river, is the residence of a rájá, and here is also another brahmin gramum. Munnakurray W. ten and a half miles from Paulghaut, situated on the high western road; at it are some ruined fortifications commanding the road, with a few bazars. S. W. half a mile from the above place resides a pensioned rájá; the rájá of Calicut has also a house in a mud enclosure; he possesses some lands in the neighbourhood. Colungode S. S. E. ten and a half miles from Paulghaut is extensive and a place of some consequence; the population consists of the natives of the eastern coast, some brahmins and nairs; the residence of the rájá is at the W. end of the town; there are no less than six agrarams in this vicinity, dependant on it. To the east is the scite of a square mud fort, to the left of the road; and Punnacootoor Pyaloor, two and three miles to the S. W., have each a gramum with a mixed population skirting the fields. Wuddavanoor N. one and three-quarter miles from Colungode, is a considerable village, and scattered over a surface of four square miles, the principal part a few bazars and the houses of merchants, situated on the road to Paulghaut. The country around Colungode, is fertile, and in a high state of cultivation; the palmyra in profusion. To the S. is a mass of mountains falling abruptly to the east by a forest partly in Coimbatoor, two good roads passing through it to Anamulla and Polachy Allatur the capital of the southern division; at it is a small street of bazars, and near it is the cutcherry of the tehsildar, where the revenue servants transact all the business of the district; it is on the high road from Paulghaut to Trichoor, and is situated S. W. eleven and a half miles from the capital, surrounded by extensive rice lands. A mile to the south is a conspicuous hill remarkable for its being alone on the plain called Wurrymulla. At Koonicherry E. N. E. two and a quarter miles from Allatur, are two gramums, it is also the residence of a petty rájá, and E. S. E. one and a half mile, is another considerable gramum with two reservoirs all in the Perincolum deshum. At Trippallur N. E. three-quarters of a mile S. of the Colungode river, is a celebrated pagoda. Wuddukuturra, S. E. three miles, capital of a subdivision, is another gramum with a temple at each extremity. Here are also Angady or Moplah bazars with a Romo-Syrian Church to the S. W. To the N. E. three-quarters of mile a Buggavuddy pagoda, and large reservoirs, is a place of great celebrity. Pundoor W. four and three-quarter miles from Allatoor is noted for two gramums, and a few small temples in their vicinity. Wuddakuncherry S. W.

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five and a quarter miles from Allatur, and the capital of a subdivision, is a small town composed of two streets of bazars with a dense population, situated in a fine fertile country, the forests encroaching within half a mile of it on the west, the inhabitants being Comaties and Chetties; it is on the high road from Paulgaut to Trichoor; there are besides several roads from different parts of the country which communicate here; in its vicinity there are no less than three gramums, and some pagodas, but none of any note. Oyacaud N. one and a half miles from the former place has a large population of nairs, their houses are skirted on the sides of the fields. Here is also another brahmin gramum, as also at Reshenadurmungalum and Podoocode. At the latter place is a street of weavers on the N. of the gramum. Mungalum N. E. one and half mile of Oyacode, has also a large population of nairs and two gramums: the pagoda of Unjymoorty, situated in this deshum is a temple of some celebrity. Madapaloor a nair village lies E. two and a half miles, a few brahmins reside on the west of the pagoda. Chittoncherry, two miles W. of the former, populous, consisting of Nairs, Chetties and Lubbais; the houses much scattered on the borders of their fields. The southern portion of the Wuddakuncherry subdivision, as well as the eastern and southern parts of Colungode consists of extensive forests and mountains inhabited by Cawders, a hill tribe. In the forests there are extensive rice lands, with kullums or granaries, belonging to some petty chiefs. Munnoor, W. N. W. fifteen miles of the capital, is populous, many weavers and potters reside here: but the principal inhabitants are Nairs and Teers, there are several pagodas, but none of note. Kongad, the capital of a subdivision five and a half miles N. N. E. of it, has a dense population of nairs and some brahmins about the pagoda, which is one of great celebrity. A festival annually takes place and people from all parts of the country resort to it on the occasion. Mundoor, four and a half miles E. of Kongad, is noted for a street of bazars kept by Turragen Chetties; the population however consists of Nairs and Teers, who reside on the skirts of the rice cultivation. The roads from Cherpulcherry and Munnoor unite here and proceed to the capital. Ugatiturrah, situated N. three and half miles of the capital, and the head of a subdivision, has a dense population of Nairs and Teers; it is a place of some note from its being the residence of the Shekhurry rájá; S. W. one mile and N. of a black rock is Cullaycollum, famous for the pagoda and tank dedicated to Yaimoory. Bugga-

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vuddy festival takes place annually. Kavulpad N. W. two miles of Paulghaut is the capital of a subdivision : it has a dense population of nairs, as also of various other castes.

The Ponany is the only river of consequence in this tract, and is formed by the following branches : the Wurret and Cosa rise in Coimbatoor ; the former passes through Chittoor, and meandering through forests joins the latter two miles E. of Poodoochairy ; it is afterwards termed the Nurragapolay, winds with a sandy bed and steep banks, W. N. W. six miles receives the Kuddavancoon river on the right bank, which has several sources in the mountains stretching S. E. from the high peak of Pereakunjee to the north ; this though a small river rushes down with great velocity, impels the main river to take a south-westerly course three miles, the banks bold, bed wide ; passes Kulputty and its pagoda, situated on the left bank, assumes a westerly course for five miles, to its junction with the southern branch called the Anamulla river, from its having its source in those mountains ; it enters the district at Palanagaram, flows to the east of the above town, thence runs N. three miles, winds W. N. W. four miles, Kodumba on the right, and here it receives a small river rising in the Chittoor division ; it then winds W. and N. N. W. (having Paulghaut a mile to the right) and forms a junction with the Kuddacoon river W. half a mile of Yeddaturrah ; its bed sandy which widens from fifteen to 300 yards, gradually winding, runs through a fine open country ; from thence it flows gently in a south-westerly course seven miles, leaving Munnacurray on the right, receives a large stream on its left bank, the latter rising in the Tencoorchy subdivision. The Colungode river is formed by the Davanur and Munjairy streams, having their sources in Koochunullay, the former meandering through a forest for twelve miles, as also the latter, and forms a junction seven miles E. of Colungode ; it then runs two miles S. W. and then meets the Olayatode, another mountain stream, on its left bank impelling the main stream N. W. one and a half miles, to Anamulla on the left bank ; from thence it turns sharply to the N., then W. with several devious windings for six miles, to Kullungode on the left bank ; it then runs S. W. one mile, W. four miles to Goodaloor on the right bank, and a short way to the S. it meets the Mullapoya river, a hill stream, which propels the main river, N. W. five and half miles, very winding ; then W. N. W. eight miles, bed broad and sandy, with rocks at intervals ; receives the waters of the Wuddakuncherry river rising in the mountains to the south, which changes its course northerly, and

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enters the Chaylakurray district of Cochin. The Modapaloor enters the district S. S. E. one and a quarter mile of Chittencherry, and winding westerly four miles receives the Wolaparae rising also in the southern mountains, propelling the river's course W. N. W. one and a half miles, and receives again on its left bank the combined waters of the Kullyanykurray and Karmgarum streams, and Chittoor river; here it is called the Wuddokuncherry river, running N. N. W. three miles, W. N. W. one and three quarter miles, receives another hill stream on the left bank; the river then runs N. and N. W. four miles with several windings, meets the river of Kolungode. Most of the above rivers are confined to narrow beds, bold banks, bottoms sandy and rocky at intervals. In all of them rafts of timber are floated and carried down with great velocity to Ponany during the periodical rains.

Tanks are numerous all over the country, mostly to be met with at the heads of the cultivated valleys, but are generally very small. A few of note are in the vicinity of Paulghaut, Koorngarapully, Velleanchattanoor, and a few in the Kolungode hobelly, none of them exceeding half a mile in circumference. A few reservoirs of some note for size, and faced with stone, are to be seen in the vicinity of a few pagodas. Wells are sunk about the habitations: the water during warm weather becomes excessively brackish.

The southern and longest portion of the Wuddakuncherry subdivision, as also that of Kolungode, is occupied by mountainous ridges; that seven miles to the S. being lofty displays many conspicuous tops, as Vellatmoody, Coobunchairy and Ponmulla. Between the latter two is the Poolyvetcha Pass, which as well as the above peaks defines the southern limit with Cochin. Ridges slope down from them to the N. N. E., N. W., forming extensive valleys, overrun with forest, containing teak, some black wood, and anjely, as do the lower and intricate ridges intersected by numerous mountain streams flowing towards the north and others to the westward. Opposite to the above and N. of Paulghaut, is a lofty range of mountains (between these the country is low and covered with forest) for about twenty miles. The principal peaks are Periakurnjy to the north, and Kulladycode northwest. The summit of the ridge stretching E. S. E. from Periakurnjy, defines the limit with Coimbatoor; the slopes of these are here and there cultivated by Mullasews, a race of hill people. North five miles from the capital is Autoomulla, a conspicucus conical hill, running W. N. W. and E. S. E., the ridge on its summit being very narrow, and the whole granite rock.

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Worettymulla N. E. ten miles of the capital is a lofty mountain, with several curious peaks, called Neddapacooty Yaglenjerry, Vauinyarmullay; the whole is a mass of granite. To the N. W. is a ridge of hills covered with low forest, very much detached; the principal and highest part is called Jyapah Mullay; these lie S. E. three miles of Kongad, the capital of a subdivision. Many black detached rocks are strewed over the face of the country, but none of them are of any note. To the N. W. three miles of Paulghaut, are two low ridges of hills on the S. bank of the Kuddacuncoon river, the principal top is called Coorchynulla, and is covered with low brushwood. The Kolungode mountains and forests are extensive, and occupy an area of upwards of 117 square miles; they are lofty towards the N. forming a perfect wall of granite, and fall abruptly towards the plains on the north; to the south it slopes off into ridges, and low table-lands, overrun with wood, containing a variety of timber. The teak tree in this tract is without exception the largest to be seen in the surrounding forests; many have been measured whose girth was ascertained to be from twenty to twenty-one feet; the bamboo, being confined to the hollows and streams, flourishes in great luxuriance. The Cauders, a race of hill people, wander among these forests, having no fixed habitations; they live on roots, and collect honey, wax and turmeric for the renters, who in lieu, recompense them with small supplies of grain, and pieces of coarse cloth. The loftiest portion of these mountains denominated Agamulla, and the most prominent point on them is Coinlangoody, a ridge with three tops, commanding a view of the low country towards the north, and the plains of Coimbatoor to the westward; it gradually becomes lower to the east, and ends at Kuchnmulla, a lofty rocky peak resembling a spire. To the southward is Vengolemulla. A long low ridge defines the limit towards Cochin. Punduram, a lofty hill east of the above, defines the limit of Coimbatoor. Between the latter hill and Kooch mulla is an easy Pass communicating with the forests, and mountains above described. The flat forests, which occupy the eastern portion of the Kolungode subdivision, contain a variety of timber, much of it teak, but of small dimensions. Veins of black rocks are scattered about this forest, and also near the base of the higher mountains; the most conspicuous is Kurdypaurae, a conical rock and one of the Trigonometrical points of the survey. In the Sholanoor subdivision the slopes are much covered with black ridges, in low forest affording very inferior timber. To the N. and N. E. of Pullacherry are sever-

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al ridges of black, rocks but no jungle; the most conspicuous is Waunmullay: also to the north and east of Pullavoor, are others extending to Taloor, a square high peaked rock. Cotahmullay, a woody hill half a mile to the E. of Kakoor, appears as if it once had been fortified; in the centre are the ruins of a temple. Periacoon in the vicinity of the village from whence it derives its name, is a green ridge conspicuous from its having some large trees on its summit. That tract through which the Cora and Wurretaur meander is overrun with thick forest all up to the eastern portion, to the post of Wolayaur, and extending to the mountains on the north, affording a variety of timber; much teak is felled in them, which is conveyed down all the mountain streams, when they swell during the rains, and a small quantity of low jungle on the heights of the interior, but not extensive. The palmyra thrives all over the surface, growing on all the higher ground, as also in the rice fields.

This portion of Malabar, notwithstanding the natural unevenness of the surface, is intersected by a number of fine roads with avenues of jack and mangoe trees. The high road from the coast, on passing Munnearry is over cultivation, descends and crosses the Ponany river six furlongs from the above place; bed sandy, 300 yards wide, then over rice lands and slopes, descends to Poodoor, a few bazars five miles; here it crosses the southern arm of the Ponany; banks high, sandy bed, 200 yards wide; proceeds east across fields and over plain slopes; enters the town of Paulghaut five miles, then passing a field, a bungalow on the right, enters Sultan Pett: its course continues east along rice fields, jungly slopes on the left, to a pagoda two and half miles (here a road branches off to the S. E.); it continues passing rice fields and slopes to Poodoocherry; a few bazars on the road; one and three-quarters miles from thence N. E. through fields six furlongs, crosses the Nurragapoly river, 100 yards wide, bed sandy; it then passes over a level through low jungle to Tirwalinda Chutturum and a banian tree two miles, and then enters the forest, crossing several hill streams to Wallayaur river and Chutturum, and a post on the left bank of it N. E. eight and three quarters miles in Coimbatoor; the above is the only road which will admit of wheel carriages. The road from Trichuwapyroor crosses the Shorayaur to Vaniamparae, a rock defining the limit, runs east over uneven grounds, through forests, crosses a couple of streams and enters Wuddakuncherry seven miles, then N. E. three quarters of a mile, crosses the river, banks steep, bed 100

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yards wide, and sandy; rice fields and slopes intervening, leaves Mungalum on the left, passes between hills, then over slopes, crosses a field to Alatur bazar and cutcherry five miles; the road then runs east one and a half miles, and crosses the Kolungode river, bed sandy, 130 yards wide, banks bold (here a road strikes off to the east), the main road N. E. passing Yermaur, and crosses a deep nullah two miles, then between black rocks and fields alternately, passes through Kolitmunum to Poodoocode and passes a stream to Cannanore five miles, ascends and winds over a slope, and through Kuddakoorchy, descends through fields to a rivulet one and a quarter miles, passing through fields to the Ponany river one mile, its bed 150 yards wide and sandy; leaves Tirwalla gramum on the right, winds through fields, and joins the main road one mile west of Paulghaut. This road will not admit of wheel carriages, owing to numerous streams and extensive fields it passes over. From Wuddakuncherry there is a mercantile road to the east; it crosses two small rivers with bold banks to Mundapaloor pagoda, on the left two and three quarters miles, passing Tekkaturra and between hills to Wuddakunturray, runs N. E., crosses the Kolungode river five miles, then south of Kooneycherry to Paracolum two miles, (here a road strikes off to the north) the original road runs N. and N. E. over rugged ground, descends and crosses Vembalar rivulet two miles, ascending passes through Elenoor over heights to Kodavoyur three miles, a populous village and bazar, runs E. to Pudunugrum a considerable market town, thence a mile to Tuttamungalum. Another road strikes off from the main one, two miles of Munnacurry; it proceeds S. E. by Matur Tunerankad, winds south of Tencoorchy, communicates with Kodavoyar Pudunugrum and Palanagrum. From the capital another road proceeds to Pudunugrum and Palanagrum, and from thence S. E. to Kolungode S. S. E. also S. S. W. across the river, viâ Tencoorchy, Vullianchattanoor to Pauracolum. Travellers and cattle traverse these roads with comfort, being generally shaded with trees, but during the rains they are impeded from the fields being inundated, and the swelling of the streams and rivers. A tolerable road for cattle from the west to Kolungode proceeds through the town of Anamary, two and a quarter miles, where the river is crossed which occurs three different times, passing the ruins of Modulmudda to Coopundy Chutturum, a tiled Choultry eight and a half miles; it then inclines S. E. Annamulladroog on the right to the town of the same name; it runs principal-

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ly through forests, and from the level nature of the ground would almost admit of wheel carriages. Another tolerable road crosses the river N. of Kolungode, runs N., and forms the limit common to Chittoor, joins a road above described at Velliamut. An inferior one leads off from Anamary S. E. through forest to Chummanumpuddy, a hill hamlet, and thence to Annamulla seventeen miles. A path from the latter place runs E. winding at the base of the hills, the Ponapaton pass, then between hills in forest S. W., crossing the Takatody three several times, reaches the Cauderpuddy: the path to it in consequenee of the wild nature of the country, and the mountains,is very circuitous, being twenty-four miles from Kolungode, but only ten miles in a direct line. The road towards Cherpulcherry from the capital, crosses the river to the N. at Kulputty, and proceeds to Mundoor north westerly seven miles, passes across fields and high ground partly covered with jungle; from thence to Kongad, W. N. W. four miles, principally over heights and jungle, with cultivation on both sides; again proceeds westerly 4½ miles, and enters the Nedunganaud talook. This road is also lined with an avenue of jack, and mangoe trees, but it will not admit of wheel carriages, on account of the uneven nature of the country. A road to Munar strikes off from the bazars at Mundoor, proceeds over slopes covered with some jungle, crosses a few cultivated valleys to Konjakolum, a temple on the left with a grove of trees N. W. 3¾ miles of Mundoor; from thence it proceeds to the westward of Kullahadycode, a deshum in Nedunganaud district. Another road strikes off from the main one two and a quarter miles E. of the bungalow at Luckkady; it proceeds W. of Munnoor, W. of Karalacherry and crosses a small stream to Kongode N. N. E. seven miles; it generally runs over high swelling ground, and is but partially lined with trees. Almost the whole of the above roads have been opened for military purposes, since Malabar was transferred to the Madras Government.

Iron ore is found in the beds of the smaller rivers intermixed with sand, and small quantities are smelted on the banks of the Kolungode river in the forest. Gold dust is obtained in the bed of the small streams, rushing down the mountains on the north of Autoomullay. The principal streams are Krampala, Cullumpala, branches of the Kuddacancoon river. The manufactures are confined to cloths of various textures, much of it a coarse description; napkins and table-cloths are made in the neighbouring villages, also at the capital, which are in great demand: also mats and earthen-

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ware. Jagary, a black sugar, and arrack is manufactured from the toddy produced from the palmyra.

Cows and bullocks are rather small, but far superior to those in the interior of Malabar; they are not however numerous, nor are buffaloes, both of which are used in the plough; goats are seen in small herds; sheep come from Coimbatoor. The wild animals in the mountains and forests are elephants, tigers, byson, elk, deer, wild hogs, and many of the lesser quadrupeds. The elephants are troublesome animals, and during the rains often venture on the plain country where they commit great depredations both on the fields and plantations; they are also troublesome and dangerous to travellers, taking their stand on the road in the forest. Many of them are taken in pits dug on the paths they are known to frequent and tamed; a few are shot by people who lie in wait, or take post on some strong lofty tree: a reward of seventy rupees is given by Government for the destruction of each animal.

The soil of the plains is in general a mixture of red and brown, and some parts gravelly, laterite abounding on the higher slopes. In the woods and vicinity of hills it is black and rich vegetable mould, and calculated for the growth of various dry grain. The principal productions are rice of various qualities, dry grains, as horse gram, beans, various pulses and vegetables, as pumpkins, melons, cucumbers, yams of various kinds, chillies and ingredients for culinary purposes, also a small quantity of cocoa and areka nut, some sugar-cane; little or none of the latter is employed in the manufacture of sugar.

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Statement shewing the Quantity, Value, and Duty of Articles Imported and Exported to and from Calicut and Tellicherry from May, 1828 to April, 1829.

Articles.	Quantity.	Weight.			Value.			Duty.		
Imports, Calicut.		*Cs.*	*m.*	*hs.*	*Rs.*	*q.*	*Rs.*	*Rs.*	*q.*	*Rs.*
Cocoanuts, moist, ..	No.765,200	..	..	..	4068	3	60	325	2	4½
Shark fins and fish maws, ...	..	..	17	17½	88	..	50	7	..	20
Vegetables, ...	..	5	9	..	32	2	80	2	2	46½
Mat bags, ...	corges 4	..	..	..	7	2	..	..	2	40
Iron, ...	..	2	13	19½	202	1	65	16	..	77¼
Coir and coir rope, .	..	3	12	3½	36	..	25	2	3	54
White and Black Khoppras, ...	..	61	..	..	1482	3	12½	77	..	33
Wax and Wax Candles, ...	..	..	1	8¾	26	1	..	1	2	80
Cardamoms, ...	..	..	2	14	50	..	..	6	2	..
Tortoise Shell, ...	..	..	..	17	112	1	21¾	8	3	94½
Medicines, ...	..	126	1	16½	6711	3	93½	372	3	30
Sandalwood, ...	..	6	16	14	382	..	..	12	1	10
Cotton PieceGoods Silk bordered,	ps. 14281½	..	..	..	62548	..	20½	1380	1	92¼
Mats, ...	corges 6687	..	..	..	186	2	60	14	3	72¾
Hemp, ...	..	4	13	7	198	2	..	11	2	36½
Europe Piece Goods,	ps. 1982¾	..	..	..	14951	1	64	63	..	53
Dammer, ...	..	10	13	24	581	2	80	21	..	59½
Dates, ...	..	216	14	..	2199	2	27	150	3	18¼
Woollens, ...	ps. 336	..	..	..	218	3	..	17	2	..
Lead, ...	..	6	7	12	541	2	28	43	1	30¼
Toon Spars, ...	c. k. b. 16th 8 22 16 11¾	..	..	..	178	3	64½	3	2	61½
Indigo, ...	..	..	11	23½	427	1	90	20	1	37
Camphor, virgin, ..	..	..	..	6½	255	..	..	17	1	52½
Kismiss and Raisins,	..	45	10	1¾	1895	1	80	123	1	15¾
Saltpetre, ...	..	29	..	12	2177	1	..	125	..	40
Kussand, ...	..	2	3	3½	646	3	50	51	3	..
Mace, ...	..	..	2	..	120	..	..	6	..	29
Rose Water, ...	kurbas 110	..	..	..	195	1	..	15	1	8
Tinsel, ...	..	..	..	21	52	2	..	3	1	77¾
Cloves, ...	..	..	3	12¼	137	..	57¼	8	1	57
Tutenague, ...	..	21	1	20	2003	..	57	67	1	45
Jagary cane, ...	..	150	19	19½	4529	2	12½	153	1	85
Terra Japonica, ...	..	124	17	26⅝	4995	3	56	196	3	32½
Vermilion, ...	..	118	14	13¾	1369	3	64	50	3	10⅝
Benzoin, ...	..	4	12	18¾	800	1	25	59	2	80¾
Onions, ...	..	31	8	..	313	2	..	22	1	74
Beads, ...	..	1	17	21	719	1	48	42	1	99¾
Quicksilver, ...	..	..	2	24½	115	..	..	7	..	40
Sugarcandy, ...	..	10	4	19¼	1635	1	99	103	..	22¾
Sugar, Soft, ...	..	142	9	1½	11229	..	50	640	..	99¼

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Articles.	Quantity.	Weight.			Value.			Duty.		
		Cs.	*m.*	*hs.*	*Rs.*	*q.*	*Rs.*	*Rs.*	*q.*	*Rs.*
Nutmegs, ...	...	..	9	15	336	1	..	21	1	60
Tea,.....	...	2	12	..	1354	3	39½	86	1	74¼
Piece Goods, Silk,	ps. 1650	..	..	..	8691	1	75	503	..	34½
Chinaware,.....	box. doz. 1 15¼ pair, 2 No. 63001	..	..	..	6746	3	77½	539	1	13¼
Brimstone, ...	...	15	8	21	694	2	75	44	3	67
Assafœtida, ...	...	10	12	23¼	6237	2	62¼	314	3	6¼
Paparkharom, ..	...	47	15	15	1001	1	..	65	2	90¾
Camphor, ...	...	9	2	5¾	4555	..	54	269	1	9
Kussand Pots, ..	...	..	..	18	9	3	56¾	..	3	8½
Hardware, ...	doz. No. 16 178	..	..	..	231	1	40	17	1	5¾
Portuguese Paper,	Reams 102	..	..	..	722	2	..	83	3	20
Europe Ditto, ..	,, 4	..	..	..	40	..	..	2	1	92
China Ditto, ...	,, 542	..	..	..	1355	..	..	77	1	17¾
Madder, ...	...	101	16	13¾	12838	..	29	877	1	63¼
Almonds, ...	...	5	3	4¾	412	2	60	24	1	31½
Coffee,...	...	..	18	5½	203	3	..	11	2	72
Umbrellas, ...	No. 2119	..	..	..	1148	3	..	83	2	..
Crackers, ...	chest. bds. 43 60	..	..	..	2156	...	..	140	2	38
Hurtal, ...	...	2	15	21¼	821	1	53½	54	2	62¼
Copper, ...	...	4	14	6	1538	3	32½	107	1	25
Brandy, ...	doz. galls. 45 72	..	..	..	942	..	..	92	2	27
Gin, ...	cks. chests 3 2½ 4	..	..	..	165	2	..	15	1	58¼
Sherry Wine,....	doz. 26½	..	..	..	547	2	..	32	..	77
Jamaica Rum, ..	doz. ½	..	..	..	5	..	..	..	1	42½
Beer, ...	doz. casks 64 3	..	..	..	728	..	..	13	..	60
Jars of Sizes, ...	No. 1227	..	..	..	608	..	...	48	2	54
Sagoo Rice,.....	...	29	14	21	511	1	70½	16	1	36
Rose Buds,.....	...	2	4	8	155	.	...	9	2	34
Tamarind, ...	...	14	2	..	141	..	...	11	1	12
Borax, ...	...	1	11	7	359	1	50	19	1	50
Allum,.....	...	21	15	21	1089	3	75	65	3	3
Steel, ...	...	5	..	14	552	3	..	33	1	83
Black Khoppras,	...	4	3	..	98	2	25	7	3	54
Betel nut with husk, ...	190,000	..	..	..	62	..	...	3	3	99¾
Ginger, Dried, ...	...	1	6	7	65	2	50	5	1	..
Cocoanuts, moist and dry, ...	119,020	..	..	..	874	..	56	69	3	72½
Coir and Coir Rope, ...	...	46	16	14	702	2	50	23	3	56
Bamboo Mats, ...	75 corges	..	..	..	112	2	...	9	..	..
Saltpetre, ...	...	11	3	4	762	3	...	42	2	25
Onions, ...	...	137	9	7	1368	2	50	114	..	87¼

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Articles.	Quantity.	Weight.			Value.			Duty.		
		Cs.	m.	lbs.	Rs.	q.	Rs.	Rs.	q	Rs.
Almonds, ...	...	19	6	11½	1545	2	57	92	...	79
Assafœtida,.....	...	4	2	..	328	..	..	25	...	72
Garden Seeds, ...	...	...	5	3½	100	2	75	4	...	94
Dates, Wet, ...	...	156	11	5½	2453	...	9½	161	...	81½
Kismisses, ...	...	26	15	18½	1639	3	29	104	...	81
Coffee,.....	...	3	5	2	911	...	...	69	3	34
Mats, ...	...	...	...	...	1116	3	82	88	...	...
Paparkharom.....	...	38	2	14	786	2	28½	51	2	78
Arrow Root flour,	...	1	4	...	96	...	...	15	1	94
Jagary, ...	...	18	14	9	275	1	96	43	1	1
Jagary Cane,....	...	56	12	12½	1698	2	62	96	...	8
Umbrellas, ...	No. 961	...	...	...	683	2	...	47	2	79
Dammer,.....	...	7	13	14	326	2	50	18	2	58
Broad Cloth, ...	...	...	...	...	210	...	64	17	...	74
Madder, ...	...	11	5	...	1406	1	...	97	2	50
Gunpowder, ...	D. B. C. 14 ¼ 57 K. and B. 58 5	...	...	...	412	...	...	4	1	98
Rose Water, ...	...	...	...	...	721	...	...	50	...	12
Madeira Wine, ..	doz. 44	...	...	...	630	...	...	30	1	34
Lisbon Wine,....	,, 35¼	...	...	...	282	2	...	7	2	81
Port Wine,.....	,, 86¾	...	...	...	1470	2	...	81	2	69¾
Liqueurs, ...	,, 3	...	...	...	51	...	...	2	2	2
Noyeau, ...	,, ½	...	...	...	21	...	...	1	2	72
Sherry Wine,....	,, 129½	...	...	...	1990	2	...	101	1	56
Cherry Brandy,...	,, 4	...	...	...	84	...	...	4	3	4
Claret,.....	P. doz. 2 116½	...	...	...	1572	2	...	160	3	95
Brandy, ...	doz. galls. 144½ 209½	...	...	...	3590	...	...	258	2	96
Gin, ...	cns. dz. gall. 8½ 21 88	...	...	...	2015	1	...	143	2	76
Burgundy, ...	doz. 4	...	...	...	120	...	...	19	...	20
Beer, ...	,, 903½	...	...	...	4764	2	...	70	1	48
Cyder	,, 29¼	...	...	...	409	2	...	9	3	75
Whiskey, ...	,, 17	...	...	...	408	...	...	29	2	80
Rum, ...	,, 6½	...	...	...	109	2	...	7	3	63
Frontignan, ...	,, 6	...	...	...	84	...	...	6	3	84
Champagne, ...	,, 26½	...	...	...	1029	...	...	77	...	28
Malmsey Wine,...	,, 1½	...	...	...	31	2	...	1	2	30
Sundries, ...	...	...	...	...	12651	1	...	770	...	40
	Total,...	...	...	...	299513	...	43¼	11,263	3	87
Exports, Tellicherry.										
Betel nuts, round	...	1106	19	5	25311	3	55½	3163	3	95½
Black Pepper, ...	...	3916	11	1¾	298589	1	71½	44900	1	69½
Sandalwood, ...	...	1061	11	11	58415	1	74	2754	2	35¼
Rice, ...	Moo. 3902	...	...	...	4665	...	...	839	3	80
CottonPiece Goods	...	...	...	...	6797	...	...	200	1	26
Cardamoms, Coorg	...	26	7	17	13482	3	15	887	2	33¼

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Articles.	Quantity.	Weight.			Value.			Duty.		
		Cs.	*m.*	*hs.*	*Rs.*	*qs.*	*Rs.*	*Rs.*	*qs.*	*Rs.*
Cassia,	...	19	11	22	3511	2	45	351	...	63
Elephant's teeth,	...	...	5	25	198	1	43	15	3	47
Turmeric,	...	1	9	25½	48	...	88	3	3	42
Arrowroot flour,	...	97	7	2	7738	3	57½	619	...	52½
Khoppras, White,	...	1	...	21	28	2	12½	2	1	13
Iron,	...	10	7	...	411	3	...	15	2	14
Cardamoms, Wynaad,	...	112	11	20	59949	2	37¼	4240	3	16¼
Betel nuts with husk,	2455000	...	...	...	979	3	25	122	1	90½
Port Wine,	38½ doz.	...	...	...	685	...	...	36	2	60½
Madeira Wine,	16 ,,	...	...	...	224	...	...	13	1	20
	doz. cask									
Lisbon Wine,	8 ½	...	...	...	168	...	...	16	3	19
Cherry Brandy,	½ doz.	...	...	...	10	2	...	...	2	96
Whisky,	½ ,,	...	...	...	12	...	...	...	3	84
Rum Shrub,	½ ,,	...	...	...	12	...	...	...	3	84
Mawda or Pharsee Brandy,	2 casks	...	...	...	32	...	...	2	2	24
Claret,	4 doz. 3 cks.	...	...	...	280	...	...	44	3	20
Hermitage,	1 doz.	...	...	...	21	...	...	3	1	44
Burgundy,	1 ,,	...	...	...	30	...	...	4	3	20
Lavender Water,	1 ,,	...	...	...	24	...	...	3	3	36
Alum,	...	24	...	14	1201	1	...	77	1	30
Goodauk,	...	24	9	21	1948	3	...	153	2	24
Silk thread,	...	...	4	14	877	2	...	12	2	40
Ochre, red,	...	13	17	...	110	3	20	7	...	27½
Hats,	No. 65	...	...	...	214	2	...	17	...	64
Tin,	...	2	10	19¼	646	...	35½	51	2	75
Komblamass fish,	No. 23950	...	...	...	123	3	...	9	3	60
Jagry Devie,	...	123	16	26¾	1857	2	86¾	148	2	47
Snuff,	...	...	1	22	50	...	...	4	...	...
Sundries,	...	...	...	...	3721	3	71	163	3	51¼
	Total,	...	...	...	194154	1	23¾	8507	2	27½
Exports, Calicut.	No.									
Cocoanuts, Dry,	8431775	...	...	...	126476	2	50	10118	...	52
	No.									
Ditto, Moist,	1277225	...	...	...	15326	2	80	1226	...	54¼
Ginger, Dry,	...	508	10	25¾	22800	2	14½	1825	...	97
Turmeric,	...	657	14	15½	18739	1	67	1499	2	19¼
Shark fins and fish Maws,	...	62	1	0½	5835	2	12½	466	3	37
Sappanwood,	...	356	11	26½	6240	1	78	499	...	94½
Vegetables	...	406	18	7	2441	3	13	196	...	46¼
Betel nuts, Dry,	...	25	13	3½	644	2	50	80	2	31¼
	Moo.									
Rice,	12595	...	...	...	16237	...	93	487	...	44½
	corges.									
Wooden Murgies,	1595¾	...	...	...	1793	2	70	143	1	97½

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Articles.	Quantity.	Weight.			Value.			Duty.		
		Cs.	*m.*	*hs.*	*Rs.*	*qs.*	*Rs.*	*Rs.*	*qs.*	*Rs.*
Coculus Indicus,...	...	139	10	...	859	3	...	67	3	92
Chests,.....	No. 213	...	...	...	832	...	80	66	2	29½
Reeds,.....	408750	...	...	...	1226	1	..	98	...	40
Oil, Cocoanut, ..	...	20	6	27½	813	3	...	65	...	40
Oil, Fish,.....	...	34	3	22¾	512	3	43¾	41	...	11½
Betel nut with husk, ...	3961500	...	...	...	1575	1	67½	196	3	71½
Arrowroot flour,	...	235	7	10½	3500	3	98	280	...	31½
Cassia,.....	...	...	11	12½	23	...	62½	2	1	26½
Iron, ...	...	35	7	0½	885	...	50	70	3	24
Coir and Coir, Rope, ...	...	605	2	23½	7823	2	99¾	626	...	7
Bamboos, ...	67840	...	...	...	3386	...	...	270	3	52
Mimosa abstergens, ...	...	227	7	21	1819	...	40	145	2	11½
Canvas, ...	Yds. 680	...	...	...	340	...	...	27	...	80
Cotton, ...	...	3	4	10	322	...	...	16	...	40
White and Black Khoppras, ...	...	952	13	11	26077	1	50¼	2086	...	76
Elephant's teeth,	...	2	11	4	1930	1	34¾	94	...	30¾
Wax and Wax Candles, ...	...	11	11	15¾	4217	...	36	274	1	14¼
Cardamoms, ...	...	1	15	18½	713	...	99	51	1	87½
	doz. cgs. no.									
Hides and Skins,	84 64¼ 4	...	...	...	498	2	33½	22	3	40
Chillies, ...	...	421	16	26¼	12655	1	51½	283	...	89¼
Tamarind, ...	...	41	13	14	416	3	...	19	...	73
Tortoise Shell, ..	...	...	...	15½	102	1	64¾	4	...	77¼
Ghee, ...	...	79	13	17¼	12748	3	72	544	2	82½
Medicines, ...	...	152	16	26¾	3522	...	36¾	161	1	54¾
Sandal Wood,....	...	40	4	1	2709	1	64¼	126	...	93¼
Cotton P. Goods, Silk bordered,..	No. 12667¼	...	...	...	38671	...	85	1194	3	26½
Mats, ...	1036517	...	...	...	3629	2	90	288	2	39½
Hemp, ...	...	154	12	4½	6224	1	37	498	2	16¾
	Ps. No.									
Europe P. Goods,	43 26	...	...	...	220	...	...	5	2	...
Dammer, ...	...	...	13	21	20	2	50	1	2	60
Dates,.....	...	2	8	7	36	...	75	2	3	58
Gingelie Seed, ...	Moo. 698	...	...	...	1221	2	...	74	2	48
Woolens, ...	Yds. 904	...	...	...	781	3	...	31	2	78½
Lead, ...	...	2	3	...	182	3	...	14	2	48
	Cs.	*K.*	*B.*	*16th*						
Teakwood Timber	8706	23	9	4½	108470	2	47¼	4031	3	84
Blackwood Ditto,	433	16	4	12½	3073	3	73¾	41	2	10½
Ebony wood Timber, ...	79	5	3	10¾	1145	3	87¾	46	2	33½
Poon Spars, ...	97	15	17	12	1953	...	47½	104	1	7½
Junglewood ditto,	45	14	15	12	124	1	95¼	1	3	81¼
Teakwood Planks,	...	674271	11	2¾	228105	3	20	9751	3	60¾
Jackwood ditto,..	...	30867	4	5	6629	3	79½	237	...	29

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Articles.	Quantity.	Weight.			Value.			Duty.		
		K.	*B.*	*16th*	*Rs.*	*qs.*	*Rs*	*Rs.*	*qs.*	*Rs.*
Ebonywood Plks.	...	139	5	8	36	...	17½	1	1	13¼
Junglewood ditto,	...	30641	11	15	2206	2	27¾	121	3	90½
Blackwood ditto,	...	5329	7	7	1419	1	58¼	55	2	1¼
Cedarwood ditto,	...	234	6	...	35	...	70	2	3	25½
		Cs.	*m.*	*hs.*						
Kussand Pots, ..	...	4	9	11¼	1613	2	78	129	...	66½
Arrowroot, ...	...	6	5	24½	50	1	...	4	...	11½
Black Pepper, ..	...	14	2	24¼	1153	3	86¼	173	...	34½
Sundries, ...	...	...	...	...	2173	3	52	174	...	35
	Total, ...	...	...	...	715360	3	87½	39169	...	61¼
Grand	Total, ...	...	...	...	909515	1	11¼	47676	2	88½
Imports, Tellicherry.										
Piece Goods, Cotton, ...	...	...	...	...	156074	1	34¾	2886	1	81
Ditto, Silk,.....	...	...	...	...	9684	2	43	662	1	10½
Ratans, ...	No. 5000	...	...	...	60	...	...	4	3	20
Plates of Sizes, ...	...	...	...	...	1601	1	93½	117	1	5¾
Glassware, ...	...	...	...	...	2601	...	60	9	1	86
Sugar, soft,.....	...	69	9	8	5227	2	32	286	2	9¾
Sugar Candy,....	...	30	17	26	4634	1	92	281	3	58½
Drugs and Medicines, ...	...	186	2	25¼	17469	2	85¼	1244	1	36¼
Stationery, ...	...	...	...	...	3385	2	...	253	...	7½
Oil, Cocoanut, ...	...	...	12	1¾	24	...	50	1	...	24½
Oil, Oondy,.....	...	...	12	1¾	10	3	12	...	...	57¾
Oil, Mustard,....	...	...	6	21	27	...	...	2	...	64
Goodauk, ...	...	1	5	...	123	...	...	7	1	32½
Tea,.....	...	...	...	...	4434	1	18¾	252	3	41¼
Cloves, ...	...	5	...	2¼	4003	...	53¾	294	1	20¾
Mace, ...	...	...	7	14	449	3	99¾	21	...	95½
Nutmegs, ...	...	2	11	14¾	1303	...	50	145	...	10
Cassia Buds, ...	...	1	16	...	45	...	...	...	3	95½
Terra Japonica,...	...	19	7	...	774	...	..	46	3	44½
		K.	*B.*	*16th*						
Junglewood Planks, ...	...	1565	2	4	116	2	10	2	1	31½
Shawls, ...	No. 300	...	...	...	11116	3	45	346	1	52¾
Sweet Oil, ...	1 doz.	...	...	...	18	...	...	1	1	76
Beads, ...	...	1	11	2½	393	...	35¼	12	2	25¾
Iron, ...	...	20	17	15	555	1	64	44	1	3
Harness, ...	5 boxes.	...	...	...	220	...	...	6	1	15
Fruits,.....	...	...	...	...	717	3	40	23	1	28
Crimson, ...	977 bdles.	...	7	0½	1562	...	57	81	1	78½
Brass, ...	...	...	5	14	422	...	...	26	3	45½
Brass Locks, ...	No. 15	...	...	...	44	...	...	3	2	8
Copper, ...	...	3	...	4	902	...	57½	72	...	68½
Wax Candles, ...	...	...	8	14	170	...	...	17	1	23¼
Boots and Shoes,	box. pairs 1 25	...	...	...	420	2	40	4	3	66

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Articles.	Quantity.	Weight.			Value.			Duty.		
		Cs.	*m.*	*hs.*	*Rs.*	*qs.*	*Rs.*	*Rs.*	*qs.*	*Rs.*
Pictures, ...	No. 27500	...	...	...	172	2	...	10	3	58
Colored Paper, ..	No. 22525	...	...	...	385	...	...	23	3	36½
Tar, ...	...	...	7	...	105	...	...	5	3	71
Flints, ...	No. 6750	...	...	...	226	1	...	6	...	47
Needles, ...	No. 181600	...	...	...	265	2	...	6	1	45
Tutenugue, ...	...	65	3	26	6193	2	64	195	2	25¾
Tin, ...	...	11	2	...	2775	...	92	190	1	87½
Military Saddles,	7 boxes.	...	..	...	2330	1	19	58	1	3
Indigo, ...	...	...	17	16	618	1	46¼	16	1	19½
Quicksilver, ...	...	...	2	14	103	2	28	2	2	21
Lavender Water,	1½ doz.	...	...	...	48	...	...	1	2	24
Lac, ...	...	...	7	15	84	...	...	3	...	31¼
Cinnamon, ...	...	3	1	16	918	...	...	62	2	85¾
Spectacles, ...	No. 2330	...	...	...	116	1	85	6	...	46¾
Gingelie Oil, ...	...	2	5	14	152	2	50	6	3	48
Gunny bags, ...	7250	...	...	...	1015	...	...	105	...	20
Hats, ...	240	...	...	...	571	2	...	45	2	88
Cheese, ...	80	...	...	...	160	...	...	25	2	40
Crackers, ...	29 chests	...	...	...	1190	...	...	75	3	52
Hides, ...	...	...	...	...	2124	2	...	65	3	10
Dammer,.....	...	22	18	21½	575	1	84	45	3	50
Shark Fins,.....	...	29	4	24	2845	2	11¾	227	2	56¾
Cotton, ...	...	85	2	23	7628	2	56	381	1	73
Ghee, ...	...	3	7	...	536	...	...	28	2	67
Gum, ...	...	4	7	...	361	...	50	28	3	56
Garlic, ...	...	10	6	15	299	1	21½	16	2	73¾
Wax Candles, ..	...	...	6	14	130	...	...	10	1	60
Flints, Grey,....	...	68	15	21	2201	...	80	99	...	73¾
Fish Maws, ...	...	11	...	24½	309	3	32	24	3	13¼
Nanarey,.....	...	1	1	5	42	1	42½	3	1	55
Fish of Sorts,....	...	...	...	...	2019	3	...	161	2	34½
Bees' Wax,.....	...	3	7	3¼	939	2	50	41	2	10½
Chillies, ...	...	9	11	14	287	1	...	8	2	47
Oil, Castor, ...	...	4	2	4	61	2	43	4	3	71
Oil, Sandalwood,	...	...	3	10½	405	...	...	22	1	10
Cardamom Seed,	...	...	3	12	85	2	86	6	3	42¼
Kootnies, ...	80 pieces	...	...	...	520	...	..	21	2	40
Cocoanuts, Moist,	No. 36150	...	...	...	433	3	20	34	2	81½
Snuff, ...	24 bottles	...	...	...	72	...	...	5	3	4
Teakwood Timber, ...	Cs. 9	*K.* 15	*B.* 7	*16th* 8	115	2	62	4	3	65
JunglewoodPlanks	...	2369	2	12	236	3	61	7	2	20½
		Cs.	*m.*	*hs.*						
Oil Cocoanut, ..	...	2	5	14	91	...	...	7	1	13
Chunam, ...	Moo. 1095	...	...	...	109	2	...	8	3	4
Mustard Seed, ..	...	55	1	3	1978	2	42½	69	...	99
Sundries,.....	...	..	...	...	668	3	...	53	2	0¾
	Total, ...	...	...	...	505207	1	...	58809	3	49½
Grand	Total, ...	...	...	...	804720	1	43¼	70073	3	36½

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Divisions.	Number.	N
	1	A
	2	G
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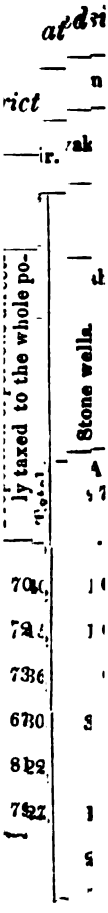
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Stone walls.

MEMOIR

ON THE

ORIGIN, PROGRESS, AND PRESENT STATE

OF THE

SURVEYS IN INDIA.

BY

CAPTAIN THOS. BEST JERVIS,

EAST INDIA COMPANY'S ENGINEERS, F.G.S. AND A.S.

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Memoir on the Origin, Progress, and Present State of the Surveys in India. By Captain Thos. Best Jervis, E. I. C. Engineers, F.G.S. & A.S.

A SUMMARY and popular account of the origin, progress, and actual state of the surveys carrying on under the auspices of the Honourable East India Company, has doubtless been considered a desideratum by many who are interested in geographical discovery, more especially as the results have recently been brought before the public, and have naturally suggested some inquiries as to the methods pursued, and the degree of confidence to be placed in what has been thus submitted to its criticism. It would indeed be a dereliction on the part of any who should enter upon the task of explaining these matters, were he to omit to notice at the outset how singularly disinterested and munificent a part this great and influential public body has taken in undertakings which, whatever may be urged of other schemes, originated in no sordid or selfish policy, and may undeniably be said to have more of a national character than any other to which their attention has been called: nay, further, which apart from the immediate exigencies of the state, have been pre-eminently calculated to speak to the steady, straightforward, enlightened principles that mark both those that direct, and those that administer the executive government of our Eastern empire.

The earliest records of the India House bear abundant testimony to the fact of the constant and lively interest taken by the Directors in the improvement of the charts and navigation of the Indian seas. Repeated instructions were sent out year after year to the local governments, to cause individual talent to be put in requisition by every species of encouragement:—log-books, astronomical and written observations to be procured and sent home, and where the originals could not be obtained, tracings were directed to be accurately made, and forwarded for compilation and publication. The patronage so wisely extended by our most gracious and excellent sovereign, George the Third, to the improvement of Geographical knowledge, was thus in spirit and in letter transferred to his people in every quarter of the globe, and the steady support which other navigators and travellers experienced at the hands of royalty, were equally evinced by those who watched over the destinies of India.

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Although some valuable scattered notices both of the geography and the trigonometrical operations have appeared from time to time in the Transactions of the Royal Society and the Asiatic Society of Calcutta, as well as in Major Rennell's Memoirs, and voyages and travels of a still earlier date, very little, notwithstanding, of what has been recently accomplished has, as yet, been described in any publication generally accessible to the community, in a simple and connected form, intelligible to readers of all classes. In endeavouring to supply this deficiency, it were much to be wished that such an epitome had been ready prepared to hand by those who have successively superintended these operations, and were, therefore, most competent to do justice both to the subject itself, and to the many meritorious individuals who have been engaged in its execution, the memorials of whose unobtrusive industry and talent would, but for such notice, be entirely forgotten and lost. In default of such account, the following particulars will be received with indulgence, and probably be found acceptable, inasmuch as they are drawn from the best sources of information by one who was for many years employed on that survey, and felt an enthusiastic interest in its progress and execution. I should have deemed it presumptuous to have engaged to prepare this paper for the Society, but for the conviction that the fulfilment of such an undertaking by any other person would perhaps have been attended with considerable difficulty, and the conclusions, so drawn, might after all have been judged far less satisfactory than as they now come from the pen of a soldier little used to description, though intimately conversant with the nature of the countries surveyed, the circumstances and capabilities of the parties employed, and the several methods which were used under all the discordant and conflicting emergencies, in despite of which so much has been accomplished.

It may be expected, however, that I should preface this account with a few remarks on the progress of geographical knowledge generally, as an appropriate introduction to that of Asia, and bring it down to the period when our acquisitions in British India began to assume an importance to the country, which demanded a more energetic exercise of authority, and established the East India Company in the administration of its government. An analysis of this sort is chiefly instructive as it illustrates the march of intelligence, and the advance of the arts, and perhaps as throwing some light on communications which have occasionally been received with interest by the Society respecting the early navigation of the ancients.

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In taking a cursory review of the progress of the most interesting and important departments of knowledge, it seems difficult to account on any rational principles for those singular contemporaneous fits, those widely-diffused impulses which circumstances absolutely unconnected with each other concur to produce in the minds of individuals, directing and instigating them to occupations and researches in extension of the most valuable objects and pursuits which have engaged the attention of the civilized world. Neither is the question satisfied on the ordinary plea of necessity. Take what department you will, though necessity shall be clearly shown to have been equally imperative, and the times proportionately fertile in expedients at the periods when such inquiries were instituted, there is a ripeness of season at which every project that is started, every effort in aid of individual sagacity or industry can alone be productive of fruit. Nor are the advances to such state, although unobserved, less subordinate to this remarkable principle. Like the return of suspended animation, the first symptoms of change are almost imperceptible, but at length the new accessions of vitality and strength are visibly increased, and the struggles of life go on with a marked and characteristic rapidity till the recovery is perfect. And it is thus, more probably, with that unnatural state of ignorance which has hitherto supervened for many ages, than to any progressive advance of the mind, whether intuitive or produced by external causes, that we should rightly apprehend the present strides of science. From a state of inanimation the moral and intellectual pulsation has been at first comparatively slow, and indistinctly perceived. The exhibition of every successive effort is a characteristic harbinger of higher and more rapid degrees of improvement,—an improvement which will eventually lead to every desirable approach to perfection.

Whatever may be the most rational account of this remarkable and simultaneous concurrence of events, many people are content to dismiss the difficulty, by referring it either to the particular occasions which call forth individual talent, or to the influence of certain master-spirits on the subsisting state and character of society. And doubtless it is on this showing, that War or Peace, Freedom or Servitude, commercial enterprise or despotic tyranny, are presumed by one or other of us to operate as so many spurs or checks to the further progress of the human race in the chief desiderata of Science and Art. Without going at any length into the proofs of this assertion, we might advert to the remarkable literary inquiries and

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establishments in the eighth and ninth centuries, instituted or fostered at one and the same period, in connexion with the religious persuasions of the Christians, the Mohammedans, and the Booddhists. The peculiar encouragement thus held out to the cultivation of the Latin by Charlemagne and his immediate successors in France and Germany; of the Arabic by the Khalifs Almunsoor, Haroun Alraschid, and Mamoon; and by the respective sovereigns of India, Thibet, and China, of the Sanskrit, Pali, and Thibetian languages; —these were eminent though unconscious precursors of those subsequent discoveries, to which we now recur with especial admiration.

Geographical science furnishes also another and appropriate illustration of this fact. The simultaneous exertions of many individuals wholly unknown to each other, to institute inquiries preparatory to that enlarged and more exact acquaintance with the relative situation of countries and objects on the surface of the globe, its precise form, dimensions, distribution, and local peculiarities; these all have followed successively at intervals, as investigations supposed to have originated in fortuitous circumstances which some one or other of the foregoing causes had contributed to elicit or suppress. This view of the matter, however discursive it may be thought by such as are indisposed to general reflections, is of consideration chiefly, and indeed solely, as it shows us the position we actually occupy, while it presents us with a cheering and magnificent prospect of what is yet to be effected and anticipated in this most essential article of information.

The most striking feature of these investigations is sufficiently exemplified in the progress of geographical discovery from the fifteenth century, when the long dormant energies of the descendants of the Phœnicians, or the jealousy and rivalry of other nations prevailed with the Spaniards and the Portuguese to wrest the commerce of the East from the hands of the Venetians, or to strike out new and unexplored paths for industry, enterprise, and social intercourse, in subservience to the spread of what was usually held out to be the paramount design, the communication of religious truth. The great object of the Portuguese, in point of fact, may probably be referred to their anxiety to dispossess the Venetians of their important commercial advantages in Egypt. The memorable treaty of that people with the Mamelukes, and their arrangements to defend the desert against the Portuguese, sufficiently demonstrate the real spirit of the restrictions to the first navigation to India. The severe system of taxation imposed by Sultan Selim, who conquered Egypt in 1512,

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and the avarice of his successors, contributed also to engage the Portuguese to follow up the discovery of India by that of still more remote lands—for then only were the great commercial importance of their discoveries rightly understood.

Whatever may have been the amount of our acquaintance with Asiatic countries, and India in particular, previous to that time, it would serve us little to examine more particularly, excepting only as it affected the question of the maturity of science in past ages. That the intercourse of the ancients was more extensive, even with the remotest parts of Asia, than has been usually admitted by European writers, will unquestionably be agreed to on examination, and thus a multiplicity of customs, laws, and institutions be legitimately referred to a common origin, which on any other supposition are altogether inexplicable.

The Spaniards unexpectedly arriving at their destination by a much shorter route than the Portuguese, left the latter uninterruptedly to pursue the great design of reaching India by sailing easterly; and of the courage and boldness of the two nations, we may be disposed, on mature reflection, to doubt whether the palm was not more justly due to the Portuguese. It was indeed a bold step, after having advanced so far to the south, to turn to the east, and realize in some sort the first move to the circumnavigation of the globe, since it was in fact almost on the very heels of the first adventures of the Portuguese that this great problem was solved by Sir Francis Drake* and Oliver Vander Woort. The voyages undertaken by the Spaniards and Dutch to the Spice Islands were likewise as stepping-stones to a greater achievement, the honour of which was reserved for our own country, just one hundred years after Bernal Diaz rounded the Cape.

And here it may be pardonable, in reference to the early commerce of the ancients, to advert, though briefly, to the singular advantages, in a geographical point of view, which the Jews possessed over every other nation of the earth, inasmuch as that remarkable people, being the chosen depositaries of institutions and laws pre-eminently superior in their moral and social tendency, they were thus in a manner encouraged and counselled to the fulfilment of higher objects in the designs of Providence, by the most extensive interchange of the commodities of their own for those of other distant lands. Palestine, as it were, the key to the commerce of the

* The motto given to Sir Francis Drake by Queen Elizabeth quaintly expressed his merits—"Tu primus circumdedisti me," surrounding a terrestrial globe.

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whole earth, was accessible to the shores of India, Arabia, and the eastern coast of Africa, by a branch of the Red Sea. By the Mediterranean its communications with the northern and western coast of Africa, the eastern shores of Europe, and by no very hazardous route with the shores of America, were equally easy, while the Black Sea, the Caspian, and the Persian Gulf, presented facilities in other quarters which no other country could have boasted of. That the ancients had a knowledge of those countries, and that they had actually circumnavigated Africa, is as probable an inference, from the testimony of Herodotus, as that the intercourse with the East was familiar to the Jews so early as in the reign of Solomon, when they trafficked for ivory, apes and peacocks, since the latter are peculiar to the countries east of the Indus. The testimony of Herodotus to the circumnavigation of Africa by the Phœnicians is remarkable, and to many may appear as conclusive as curious. The authenticity of the passage indeed has, like many others of a similar description, been disputed by critics on account of the remark that "when autumn arrived they drew to shore on that part of Libya opposite to which they might be, there they sowed the ground, and awaited the harvest, which, when they had reaped, they again set sail;" a conclusion, however, which, as well as that of the sun's rising on the right hand as they rounded the extreme promontory, and the resistance opposed to their further progress by the contrary currents and accumulation of sea-weed in 14° S., mentioned at the termination of the narrative, all bespeak alike the fidelity of the historian and the veracity of his informants*.

* "I wonder at those who divide and lay down the boundaries of Libya, Asia, and Europe, as if the difference between them were not very great; for, while in length, Europe extends along both, no comparison can be formed by which to estimate their relative width. Libya declares itself to be circumnavigable, except where it is bounded by Asia. The first person known to have proved this was Necho, King of Egypt. When he ceased to carry on the canal leading from the Nile to the Arabian Gulf, he sent out some Phœnicians, instructing them to sail round by the Pillars of Hercules (Straits of Gibraltar) to the Northern Sea (the Mediterranean), and so return to Egypt. These Phœnicians, therefore, parting from the Erythræan Sea, navigated the Southern Sea. When autumn arrived they drew to shore on that part of Libya opposite to which they might be; there they sowed the ground, and awaited the harvest, which, when they had reaped, they again set sail. Thus they continued their progress during two years; in the third, doubling the Pillars of Hercules, they arrived in Egypt. These persons affirmed, what to me seems incredible, though it may not to another, that, as they sailed round Libya, they had the sun (rising) on the right hand. In this way was Libya first made known.

"Long after the Phœnician voyage, as the Carthaginians relate, Satapses, son of

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These are considerations, however, which many may reckon more fanciful, or at best, more speculative than conclusive and useful. Let it be remembered, however, that one step made towards the solution of any difficulty is calculated to pave the way to the solution of others :—and while we dwell on the beauties of classic literature, we are frequently tempted to discredit the accuracy of the author on the ground of one mis-statement, or disparage his writings on the score of puerility or fiction. Thus also, when tracing similarity of moral institutions and civil usages in remote parts of the earth, where intercourse had not been suspected, we are in a like degree prone to conclude against a degree of civilization and intercourse, which may be founded in reason as well as in fact, from not having sufficiently examined or considered the evidences to the contrary.

The commercial expeditions to India by the Romans, the Egyptians, and at a later period by the Arabs, were of too exclusive a nature to throw much light on geography ; vestiges of the former on the coast of India are still to be found throughout Malabar, where large collections of Roman coins have escaped the furnace

Teapses, of the Achæmenidian family, was sent to circumnavigate Libya, though he failed to accomplish his task ; for, appalled by the length and desolation of the voyage, he turned back without having achieved the toil imposed upon him by his mother. This Satapses had violently insulted a daughter of Zopyrus, son of Megabysus ; for which offence he was about to be impaled by the order of King Xerxes, when his mother, who was the sister of Darius, interceded for him, saying that she would inflict upon her son a still greater punishment, for she would lay upon him the necessity of circumnavigating Libya, until he should arrive in the Arabian Gulf. Xerxes consented to this proposal, and Satapses going to Egypt, there hired a ship and mariners, and thence sailed through the Pillars of Hercules. Having passed these, and doubled the extreme point of Libya, which bears the name of Soloëis, he sailed southward ; but after traversing, during many months, a vast extent of sea, and knowing that still more must be passed, he turned his course, and sailed back to Egypt. Thence he proceeded to Persia, and presented himself before Xerxes. He said, that on the remotest part of the coast along which he sailed he saw men of diminutive stature, clad in leaves of the palm tree, who, whenever the sailors drew to shore, abandoned their towns, and fled to the hills. His people entering, did the natives no other injury than taking their cattle. The reason why he could not sail entirely round Libya was, he said, that in attempting further progress his ship stuck fast ; but Xerxes not giving credit to the excuse he made for not fulfilling the appointed task, condemned him to undergo his first sentence, and he was impaled. The chief officer of Satapses, instantly as he heard of his death, fled to Samos with great wealth. This treasure was seized by a certain Samian, whose name I well know, and purposely conceal."—*Herodotus*, Book iv. Section 3.

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of the goldsmith*. The Egyptian fleets were encountered by the Portuguese on their first arrival in India, and the Arabs had for many centuries colonized not only on the whole line of coast from the Persian Gulf to Cape Comorin, but had established themselves on Ceylon, and all the principal islands of the Indian archipelago. In such state of things Europeans found the navigation when they first became acquainted with it; but for the successive improvements it has undergone from this period, we are much indebted to the diligence of persons unconnected with official duties†.

The circumnavigation of the globe was, however, too much to be taken on trust, and the relative situation of countries needed further confirmation. These were pursued with unabated curiosity, till in seeking to assign to objects their proper place on its surface, the precise form of the earth and its dimensions, new and still more intricate problems were found to be indispensably necessary. It is in this stage of the proceedings that we purpose to notice the most prominent particulars connected with the geography of Asia, more especially those departments of it which relate to India, and the valuable maritime surveys instituted and carried on by the public spirit and munificence of the Honourable East India Company.

The contemporaneous experiments of Picard in France, of Snellius in Holland, and Norwood in our own country, for the measurement of a degree on the meridian, had given rise to many curious speculations, which, in conjunction with the mathematical deductions of Huygens and Newton, revived in the early part of the eighteenth century the contested problem of the determination of the earth's ellipticity. In the researches incident to such inquiries, much new geographical matter had been added to that acquired from other sources, and every resulting formula so obtained was systematically applied by Cassini and Danville to the improvement of the charts and maps of other countries. They were indeed remarkably qualified to originate geographical projects, and reduce the stores of information which were daily flowing in from all quarters, and for a considerable period the maps of

* A very large and most valuable collection of these coins is now in the possession of a native at Palghautcherry; and Mr. Sparks, of the Madras civil service, told me he had been particularly successful in procuring many rare specimens in that province.

† Horsburgh, the self-taught cabin-boy, and one of the first hydrographers in the world, is an instance in point.

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the latter as respects India and the neighbouring countries were the best we had. But a vast field had at length been gradually opening out for like investigations in India, as in Europe, by the extension of the theatre of war to the most distant and hitherto unexplored provinces, and the gradual subjugation of the princes lately confederated with the French nation. Major Rennell of the engineer corps, whose celebrity as a geographer is familiar to all of us, was the first person who reduced the miscellaneous materials collected by British officers on the same principles, and in pointedly stating his obligations to Mons. D'Apres' Neptune Orientale; and to M. Danville's maps of Asia and India, published in 1751 and 1752, he eulogises with astonishment the skill and tact with which that excellent geographer availed himself of the scattered notices derived from vague itineraries and books of travels.

This observation of Major Rennell, respecting Danville, may lead us to estimate the peculiar talent which enabled him also, under existing circumstances, to produce so much valuable information respecting countries that were inaccessible to European observation; it was the talent of comparing and collecting, the habit of selection, and a judicious application of such selection to one uniform system—requiring no ordinary share of patient investigation and deference to truth, to the exclusion of whatever might be either speculative or unknown. A memorandum or simple route enabled him under such restraints to fix the position of many interesting places with a very tolerable degree of precision. To everything there must be a beginning, and with reference to those who are disposed to undervalue labours of this sort, it may be well to offer in extenuation that the master hand is as frequently displayed in the first rude outline or design as in the finishing touches of a portrait; and a hasty sketch is, in its way, calculated to express frequently as much as can be conveyed by a more perfect delineation. With regard to Major Rennell's opinion, that the public records at Goa contained much that might have served to illustrate eastern geography generally, he was doubtless misinformed, as I had the most unlimited access to everything of that sort for several years, and was assured that if anything had been deposited in the archives prior to 1700, it had been abstracted or destroyed at the instance of the Marquis of Pombal.

Having once laid down a general plan, everything additional fell in its proper place, and served at least to recommend more

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perfect and accurate surveys to succeeding investigators. Such as his information was respecting Berar and Bengal, it is still the most complete we possess, though the rewards and credits were in a measure bestowed on a far less gifted and successful observer, Colonel Charles Reynolds. There is one way, however, of satisfying those who are over-scrupulous, and can find no merit in adjustments so dependent, as they may argue, upon chance, which I will venture to affirm is unanswerable, and that is, a comparison of the latitudes and longitudes of the principal points determined by Rennell, and the results of the great trigonometrical survey. The coincidences indeed were more than sufficient to justify that remark made many years ago by Johnson, in his Tour to the Hebrides, that many parts of India were better known than the northern parts of Scotland.

Many very intelligent officers soon followed in the train of Major Rennell; Captain Moncrieff, of the Bombay Engineers, Captain Mackenzie, of the Madras Engineers, and Colonel Charles Reynolds, who were all three very early distinguished for their capacity in this line. The former, in his progress through Canara and Malabar, produced a valuable geographical sketch of those provinces subsequently incorporated by Colonel Reynolds in his large map of India*.

It is not too much to conclude that some portion of the characteristic spirit of Rennell had been communicated to all those who were placed in connexion with him in his official capacity of surveyor-general; for about the time of the publication of his Memoir of a map of Hindoostan, a variety of documents were placed on record, which were suffered to pass unnoticed, and there is still much in them which would deserve preservation. On the 14th January, 1780, Mr. Charles Chapman was deputed to the government at Cochin China, to inquire into the advantages of a commerce with that country, and to endeavour to establish a freedom of trade to all the Company's settlements, under sanction of the ruling power of the place. A narrative of his proceedings and observations on Cochin China and Tonquin, in pursuance of this mission, was forwarded to the Court. Another document, with a set of drawings

* Captain Reynolds' Survey of Bednore, on a larger scale than any which had then been attempted (four miles to an inch) first brought him into public notice, and deservedly so, both from the minuteness and accuracy with which it was executed, and its extent and completeness, considering how very few there were at that time who paid any attention to science.

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of lands as they appear in the eastern passage to China, according to the bearings laid down, was sent in by Mr. George Grey Townshend, on the 24th January, 1791; and a further description, with charts of Cochin China, by Mr. George Taswell, on the 9th August, 1799. Lieutenant-Colonel Kyd, of the Bengal Engineers, Mr. Ritchie, Colonel Colebrooke, and Captain Blair, furnished at intervals various astronomical particulars, and written information respecting the Ganges and the Hoogly rivers, as did Lieutenant Wood, Mr. Reuben Burrows, and Mr. Michael Topping, on the coasts of Arracan, the Delta of the Ganges, and the latter on the entire eastern coast, from the embouchure of that river to Cape Comorin. The volume of astronomical observations by Mr. Reuben Burrows, 31st January, 1791, may probably contain many well-determined points which have not yet been ascertained either by Captains Ross, Crawford, or Grant. They are accompanied at least by sketches of the coast, done with much care, and referred to a series of bearings, latitudes, and longitudes, which is to be inferred from the fact, that the entire book is throughout in the hand-writing of that skilful mathematician.

Mr. Michael Topping's observations on the currents in the bay of Bengal, of the 1st March, 1788, on the 16th January, and 26th June, 1792, may probably be found of essential importance in future investigations respecting the retreat or advance of the sea on the east coast of India, and the exact registration of the tides. His survey of the mouths of the Godavery river and Coringa road, 18th September, 1790, and 21st January, 1791, and his proceedings and report in the Masulipatam Circar, drawn up with a view to ascertain the practicability of applying the waters of the rivers Krishna and Godavery to the fertilization of the land, with charts, observations, and levels, communicated 20th February, 1794, and 2nd October, 1795, may yet induce the Madras government and authorities at home to reconsider that valuable project.

I have drawn up this summary account of a few of the most remarkable attempts to add to our stores of geographical and hydrographical information before the conquest of Mysore, during which interval the office of surveyor-general had been held successively by Colonels Call, Charles Reynolds, and Colebrook. I should not omit, however, to notice the valuable maritime surveys of Captains Huddart and M'Cluer, and Lieutenants Ringrose, Wedgeborough, and Skinner, on the western coast of India, from 1790 to 1793, which still continue to be good authority to navigators of that coast,

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and were actually incorporated by Colonel Reynolds in his map. At the time they were delivered to the government an outcry was raised against their accuracy, which subsequent inquiry has shown to be without a shadow of justice; and I may mention it as a corroborative proof of the attention and skill which must have been bestowed on the subject by Captain M'Cluer, that in carrying on a trigonometrical and topographical survey of the coast upwards, with all the helps and improved methods for which our recent acquisition of the country afforded also greater facilities, I found the actual outlines of the coast and exact distances differ very immaterially from those in M'Cluer's charts, and I had the more favourable opportunity of verifying the fact, as the superintendent of marine furnished me with Captain M'Cluer's original drafts, on a large scale, for this express purpose.

Such was the state of our acquaintance with India down to the breaking out of the second war in Mysore in 1799, established for the most part on the valuable deductions of Major Rennell and Danville, whose labours were eventually incorporated with a mass of native information of different character in the large map of Colonel Charles Reynolds. And here it may be well to pause for a while, and take a general review of the state of geography in India as compared with that of our own country, where many of us would willingly believe some much more marked advance had been made to an accurate acquaintance with the position and superficial extent of the British territories, than in less civilized lands; and that a maritime nation at least, such as England, had been long in possession of the most accurate charts of its own shores, which should enable its shipping, in the event of anticipated peril or stress of weather, to avail themselves of every advantage presented by peculiar natural localities.

In countries where the inhabitants are comparatively backward in point of civilization, where there are but few large towns, where commerce is not the primary pursuit, and there are hardly any great roads, the delineation of the great features which they present has usually been deferred till they have become the theatre of war, and even then are supposed for all ordinary purposes sufficiently complete by the collation of routes, corrected here and there by observations for latitude and longitude. It is argued that the difficulties to be surmounted, and the advantages to be expected, could never be commensurate with each other, nor would the expense of money and life thus bestowed be in any adequate degree

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compensated by the information acquired. Where so much is necessarily left to imagination, it is inconceivable how little dependence is to be placed on the generality of such compilations, how much interpolation and repetition also of rivers and towns, and other principal objects, are incident to the mere inconsistencies of orthography. My particular attention was drawn to the latter circumstance, on going over the tract of country on the western coast of India, and comparing the actual survey with that compiled by Colonel Charles Reynolds in 1798.

Moreover, as in route surveys much is left to the eye, to the judgment of the observer in estimating distances, as well as to his candour in drawing inferences from the various descriptions of information presented to him, it very rarely happens that any two practitioners, and they are usually self-taught amateurs, arrive at the same conclusions. The very same provinces, therefore, which purport to have been laid down from the most accurate observations of such persons have occasionally a degree of dissimilarity to each other, which leaves the compiler quite at a loss on what principle to reconcile their discrepancies. The repetition of such surveys serves only to increase perplexity, where some even of the principal towns and geographical features are most unceremoniously shifted several miles, while their exact position is still matter of doubt, if happily he should not find them in two places wide apart.

Such, anterior to the commencement of the great trigonometrical survey in Great Britain, was the only method in general use, and it will not be out of place to mention that there were then errors in the positions of some important points, as the Lizard, to the amount of seven minutes of a degree, and that many of the best county maps exhibited blunders of three miles in a distance of less than twenty.

The various surveys throughout India and in Bengal, to a still later date, have, with few exceptions, been conducted in like manner, and the maps of districts under the latter presidency have, in consequence, been proportionally erroneous. To remedy this defect has long been desired, but it is a task not easy at first sight to determine how a measure fraught with so many difficulties is to be effected without an extravagant outlay of money.

The great map of India constructed by Colonel Reynolds was formed also on the foregoing principle. One extensive line of route running through several degrees of latitude from Goojerat to Hindoostan, and corrected where it terminated on either side by ob-

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servations of latitude, having been measured with considerable care, constituted a primary basis, to which other routes diverging on either hand were referred, and the intermediate spaces filled in from native information, or the labours of his assistants, Colonel Monier Williams, Sir James Sutherland, and other officers. This was until very lately the foundation of the entire map of Cutch, Kattywar, Goojerat, Hindoostan, and Rajpoothana, corrected at times by route measurements under his successor Colonel Monier Williams. The expense of this imperfect geography from first to last has been incredibly great, but the reputation of Colonel Reynold's system and of his successors in office stood so high with the Bombay government, that every suggestion for improved and more conclusive surveys was invariably negatived as superfluous.

A collection of routes and other information collected by Colonel Kelly, and suggestions for the improvement of the south of India, by Lieutenant-Colonel Gent, chief engineer at Madras, on the 28th January, 1784, followed up by a large and valuable compilation of routes by Captain Mackenzie, during a period of twelve years, four of which were incessantly devoted to that duty, constituted the basis of the geography of the south of India, lying principally between the Krishna river and Cape Comorin. Captain Mackenzie's labours began towards the close of the war of 1783, in the provinces of Coimbatoor and of Dindigul, afterwards in the course of his professional duties as an engineer in the provinces of Madras, Nellore, and Guntoor, throughout the whole of the war from 1790 to 1792 in Mysore, and in the countries ceded to the Nizam by the peace of 1792, from which period till 1799 he was engaged in the first attempts to methodize and embody the geography of that prince's territories and the Deckan, interrupted only for a short period by the voyage and campaign to Ceylon in 1795-6. The peculiar talents of Captain Mackenzie for geographical and statistical inquiries had been early brought to the notice of Lord Cornwallis, and his deputation to the Nizam's dominions, at the conclusion of the campaign of 1792, enabled him to reduce the materials for the map of that prince's territories to some degree of order. This map with the routes, memorandums, and notes, constituted the most useful exemplar of military survey, and contains, besides actual measurements, a multiplicity of curious and useful remarks on every subject that fell within his reach.

But a new and important era was now opening on this department of knowledge throughout the civilized world. The defective-

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ness of the best British maps, the revolutionary turn of affairs in France, and an accidental circumstance of the most unlooked-for nature led in each of these countries to the entire remodelling of the respective surveys.

The British government having deputed Lord Macartney on an embassy to the Emperor of China, charged their ambassador with various magnificent presents, and amongst others some which perhaps even our modern intellectual diplomatists would consider a little out of character, a beautiful zenith sector and 100-feet steel chain, constructed by Ramsden, a levelling and transit instrument, besides other apparatus of a like costly and scientific description. The Emperor having declined this conciliatory offering, the embassy stopped at Madras on its return homewards, and on coming to a reckoning with Dr. Dinwiddie, the astronomer and physician who had accompanied Lord Macartney, the luckless instruments were assigned to him in part payment of his salary. The mathematical abilities and philosophical turn of mind of Colonel Lambton, at that time a lieutenant in H. M. 33rd regiment, had not escaped the observation of its distinguished commandant, the Honourable Colonel Wellesley. Lieutenant Lambton, who was at that time officiating as brigade-major to Sir David Baird, having accidentally become acquainted with the circumstance, and confident of his own powers, made interest that these valuable instruments should be rescued from the auctioneer, and turned to some national account. The Earl of Mornington, the governor-general, on the final reduction of Mysore in 1799, being then at Madras, concurring with his brother in the advantageous opportunity thus presented for carrying on an extensive survey of the Mysore dominions, further nominated Captain Mackenzie to the topographical details, while the statistics were assigned to Dr. Buchanan.

Events had thus fortunately concurred to the furtherance of the design proposed by Lieutenant Lambton, and humble as this tribute may appear, it is no less just than due to ascribe the first encouragement of the measurement of the largest meridional arc that has ever yet been undertaken throughout the world to his Grace the Duke of Wellington. Every one who has experienced the difficulty of maturing any useful project, can better appreciate the patience and foresight which could have led his Grace to recommend Lieutenant Lambton's novel scheme to the government of India, prepossessed, as it had hitherto always been, in favour of the sufficient accuracy of mere geographical and route surveys.

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At his Grace's suggestion to Lord Mornington, Mr. Petrie and Lord Clive, then governor of Madras, the instruments were purchased on account of Government, and in furtherance of this project, a large theodolite similarly constructed to that used by General Roy, as also an altitude and azimuth circle for secondary triangles were made in England by Cary, and by the year 1801 all the requisite apparatus was at Lieutenant Lambton's disposal*.

In the year 1800 a plan of the intended operations was submitted to the government of Fort St. George, and with their sanction published in the seventh volume of the Asiatic Researches. It was here proposed to join the coasts of Malabar and Coromandel by a series of triangles, which might be extended on the south to the extremity of the peninsula, and to an indefinite distance on the north, on a plan similar to that which had lately been adopted in France and England. In the month of October of that year, a base line was measured near Bangalore, and the first experiments were made with the zenith sector at Dodagoontah. In the early part of 1802 a base line was measured near Madras, and in the mean time a new chain had been received from Mr. Ramsden, which professed to have been laid off at the temperature of 50° Fahrenheit from that artist's bar.

Lieutenant Lambton's first operations after this, were to carry on a series of triangles depending on the Madras base westward, to meet the Bangalore base, and finally the west coast near Mangalore. In pursuance of this intention, he established the meridians of Carangooly, Kylasgurh, Terrakondah, Severndroog, Mullapannabetta, and Balroyndroog, the positions of each of which he determined with relation to the Madras observatory. He also essayed to measure two perpendicular arcs, viz., those connecting Severndroog with Yerracondah on the east, and Mullapannabetta on the west side, each being nearly sixty-seven miles in length.

No country or circumstances could have been more favourable for such an attempt, whether we regard the skill, intelligence, and zeal of the operator, the excellence of his instruments, the liberality and freedom from restraint which he experienced on the part of the Government, or the fortunate situation of the eminences on which his stations were chosen. But it was his opinion that he had failed entirely in deriving any results to be depended on from his perpen-

* Much of the excellence of these operations has been attributed to the skill of the artists Ramsden and Cary in the apparatus employed, and it is not out of place therefore to bring such high testimony before the public in the Society's Memoirs.

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dicular arcs; and it is now, I believe, the general opinion among mathematicians that longitudes cannot be determined by this method, but must be deduced from other sources.

About the same period Lieutenant Lambton carried a series to the southward, which terminated at a place called Trivandapooram, near Cuddalore. Here he determined the latitude by a sufficient number of zenith distances, and he then proceeded to Pauedre, a place nearly under the same meridian, where, by another set of zenith distances, he found the amplitude of the celestial arcs between the north and south points of a small meridional series, in middle latitude 12° 32′ 21″. This arc forming no part of the principal meridional series, which passes through Dodagoontah, was subsequently carried by him to the southward down to Punnae, near Cape Comorin, and finally to the northward as far as the parallel of 21° nearly; but as the particulars of these operations are all in the possession of the Court of Directors, it would be superfluous to enter into any description of them in this Memoir. The meridians of Severndroog and Dodagoontah are so near to each other, that the same series connects both: for geographical purposes, such as the determination of latitudes and longitudes, the former is used, the latter only being reserved for scientific details.

The measurement of a base of verification, and the observation of a set of zenith distances near Beder, in the year 1815, by Lieutenant-Colonel Lambton, brought the great meridional series up to the parallel of 18° 4′, and with it, of course, the series of Severndroog. In 1817 this series was continued to the northward to the Godavery river, the triangles then branched off to the eastward to meet the Yerrakondah meridian, down which a series was carried to the former points on the Krishna. In 1819 Colonel Lambton determined to bring up the series of Carangooly to the same parallel with those of Yerrakondah and Severndroog; but as the operations proceeded the features of the country seemed favourable for completing the intermediate series of Kylasgurh also, and by the end of 1820 both these series were satisfactorily conducted to the Godavery, though, it must be observed, that the unhealthiness of the tracts was such as to occasion great loss of lives, and to ruin the constitutions of almost all engaged in the laborious task. In the two following years the meridional arc was extended to Ellichpoor, and a base of verification measured in the valley of Berar by Colonel Lambton in person: the lateral series connecting Bombay with the base line at Daumergiddah, in latitude 18° 3′, was temporarily

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interrupted by the death of this distinguished officer on the 20th of January, 1823. From that period the operations have devolved on Major Everest, F. R. S. whose conjoint labours with Colonel Lambton have been brought before the public in a separate publication. Major Everest has subsequently carried on the meridional arc from Seronj, in latitude 24° 7′, to Kedar Kanta, in the Himalaya mountains, in latitude 31° 2′, verified by a base line in the Deyra Doon, situated near the foot of those mountains.

A lateral series connecting Calcutta and Benares with the great meridional arc at Seronj, by Mr. Oliver, and another series from Bombay, by Lieutenant Shortrede, has established the relative positions of the three principal stations in India.

A series of triangles by Captains Ward, Conner, Garling, Snell, and Jervis, has been carried on in the different provinces south of the 20th degree of latitude; and other lateral series, on four distinct meridians, are in progress to the eastward of the meridional arc, by Lieutenants Wilcox, Boileau, Macdonald, Waugh, and Renny.

I have purposely abstained from any observations on the continuation of the operations by Major Everest, as they will probably be given to the public by himself at no distant period, but consider it a theme of pride to our country to have had two so highly distinguished and competent mathematicians as Colonel Lambton and Major Everest, and that the latter should have lived to have brought to a completion the most extensive, and probably, I may venture to add, also the most accurate measure of the earth that has yet been accomplished. Punnae, the southern extreme, is in latitude 8° 9′ 38″; Kedar Kanta in 31° 2′. The total arc, therefore, is about one-sixteenth of the entire circumference.

On this triangulation as a basis, and on the various lateral series carried on by the officers and élèves of the excellent military institution established at the suggestion of Colonel Colin Mackenzie, of the Madras Engineers, and ably superintended for many years by Captain Troyer, the whole of the peninsula south of the Krishna has been minutely surveyed in detail. The whole of the Bombay Presidency, Khandesh and the eastern portions of Goojerat only excepted, remain unfinished. Of the Nizam's or Hyderabad territories a large portion has been accurately surveyed. The Rajah of Berar's, or Nagpoor dominions, have also been triangulated and surveyed, though with less attention to accuracy. The survey of the Northern Circars by Lieutenants Sackville, Buxton, and Snell, completes the portion designated as the Peninsula. North of this,

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of which the Nurbudda is the boundary, a very large portion under the Bengal Presidency has been likewise surveyed, according to the methods already adverted to, that is, route surveys corrected by astronomical observations; and on the eastern frontier much geographical matter has been added by Lieutenants Wilcox, Pemberton, and Grant.

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ADDRESS

DELIVERED AT THE GEOGRAPHICAL SECTION OF THE BRITISH ASSOCIATION, NEWCASTLE ON TYNE,—FRIDAY, AUGUST 26th, 1838.

DESCRIPTIVE OF THE STATE, PROGRESS, AND PROSPECTS

OF THE

VARIOUS SURVEYS,

AND OTHER SCIENTIFIC INQUIRIES,

INSTITUTED BY THE HONORABLE EAST INDIA COMPANY THROUGHOUT ASIA;

WITH A PREFATORY SKETCH

OF THE

PRINCIPLES & REQUIREMENTS OF GEOGRAPHY:

BY

MAJOR T. B. JERVIS,

E. I. C. ENGINEERS: F. R. S.: MEMB. R. GEOG. SOC.: F. GEOL. SOC.: F. R. ASTR. SOC.: F. R. A. S.:

APPOINTED PROVISIONALLY, SURVEYOR GENERAL OF INDIA.

"In links of steel, here superstition binds
The unenlighten'd native to his CASTE;
Tethers him; blights his genius; condemns to ply,
Unceasingly, the trade his sires have plied,
Like Sysiphus—for ever:—debarred
All hope of change, all prospect to o'erleap
Or burst her barriers to the skies uprear'd,
Immur'd, as in the chambers of the grave."

GISBORNE'S WALKS.

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" GEOGRAPHY is not only 'the most important of the practical branches of knowledge to which ASTRONOMY is applied,' but is also, theoretically speaking, an essential part of the latter science.—In its widest sense, it comprehends not only the delineation of the form of its continents and seas, its rivers and mountains, but their physical condition, climates, and products, and their appropriation by communities of men. Astronomical Geography has for its objects, the exact knowledge of the form and dimensions of the earth, the parts of its surface occupied by sea and land, and the configuration of the surface of the latter regarded as protuberant above the ocean and broken into the various forms of mountain, table-land, and valley; neither should the form of the bed of the ocean, regarded as a continuation of the surface of the land beneath the water, be left out of consideration: we know, it is true, very little of it; but this is an ignorance rather to be lamented, and, if possible, remedied, than acquiesced in, inasmuch as there are many very important branches of inquiry which would be greatly advanced by a better acquaintance with it.

" Our knowledge of the surface of our globe is incomplete, unless it include the heights above the sea level of every part of the land, and the depression of the bed of the ocean below the surface, over all its extent."

Sir John Herschel's Astronomy.

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EIGHTH MEETING OF THE BRITISH ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE.

Friday, August 26th.—Fifth Day's Proceedings.

SECTION C.—GEOLOGY AND GEOGRAPHY.

President for Geology—Mr. C. LYELL.
(For Geography)—Lord PRUDHOE.
Vice Presidents for Geology—Rev. W. BUCKLAND, D. D., Mr. J. BUDDLE, Mr. RICHARD GRIFFITH.
Vice President for Geography—Capt. Sir GEORGE BACK, R. N.
Secretaries for Geology—Mr. W. C. TREVELYAN, Capt. PORTLOCK, Mr. T. JAMESON TORRIE.
Secretary for Geography—Capt. WASHINGTON.

Committee—Wm. Smith, L. L. D., Viscount Cole, Sir Philip Grey Egerton, Bart., Mr. R. I. Murchison, *Gen. Secretary;* Rev. Prof. Sedgwick, Mr. G. B. Greenough, Count Breunner, Director of the Imperial Mines of Hungary, Marq. of Northampton, Mr. H. T. De la Beche, Prof. Phillips. *Assist. Gen. Secretary;* Messrs. Robert Ingham, H. Witham, Boscawen Ibbetson, J. H. Fryer, J. B. Jukes, James Bryce, Wm. Hutton, Richard Griffith, Jas. Smith, Charles W. Hamilton, John Taylor, jun., Joseph Carne, Joshua Trimmer, Col. Silvertop, Major Jervis, E. I. C. Service, Capt. W. Allen, Capt. James Ross, Dr. Richardson.

The Vice-President for Geography, Sir George Back, on taking the Chair, addressed the Meeting, and intimated that as the call on several members, for a summary of the present state and objects of Geography, had been unavoidably postponed on the previous day, from the multiplicity of other communications,—he would now request his friend Major Jervis, of the E. I. C. Engineers, who had passed many years of his life in India, to contribute some account of the nature of those geographical Surveys, and scientific operations, which had been so laudably and liberally carried on, under the auspices, and at the expense of the East India Company. In recounting these, he felt persuaded, Major Jervis would throw much novel and instructive information on a sadly neglected branch of knowledge, Geography; for which office, he was sure, that officer

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was well prepared, both from his previous conversance with its practical and theoretical details, and his proper professional education. Other particulars, no less interesting and important, in reference to the various Surveys throughout Europe, and generally in all quarters of the globe, would be communicated to the Meeting, by Mr. G. B. Greenough, Capt. Allen, R. N., and Capt. Washington, R. N. who had laboured so indefatigably in a cause, which equally concerned the National honor, and the Commercial interests of a great Maritime people. Major Jervis then addressed the Meeting, as follows.

Mr. President and Gentlemen,—It is with some diffidence I venture to address this large assembly on the subject of the Survey of India, and the Geography of those vast and interesting regions, in which I am destined to direct the important geodetical investigations for the determination of the Earth's figure, and other physical and geographical inquiries. The general principles of Geography I could wish to see better explained, and the utility of this science more ably asserted.

The present circumstances of India, and its peculiar relation to Great Britain, are sufficient of themselves, in these critical times, to constitute a claim to the attention of the mother-country, and of every intelligent and Christian mind: to call forth in us who now plead the cause of Geography, and in every individual whose lot may be cast, or whose public services may be engaged, in that remote quarter, the most energetic activity, and the most devoted application of his best powers:—Geography in short,—*ostensibly*, a secondary object in this Section, is, properly speaking, its principal and by far the most important concern, inasmuch as it stands in respect to the things of this earth,—to *Terrestrial phænomena*, of whatever nature, precisely in the same circumstances as Astronomy to *Celestial phænomena*.

Astronomy and Geography may be appropriately styled Sister Sciences. These are the two rich depôts of facts to which all other researches contribute, the grand repositories to which such facts are eventually and necessarily referred,—where they should be so distinctly classified and disposed, and in the last resort so harmoniously combined, as to present one comprehensive intelligible whole; thus fulfilling in conjunction, the true intent of such pursuits: to methodize and simplify other compendiums of physical knowledge, to bring their various details within the reach of our limited capacities and short existence, to make us better acquainted with our own constitution and abode, and the great Author of all things,—

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to make us, in short, more reasonable, more contented, and more humble. Summarily, to deduce and appreciate the unity of design of all objects and phænomena with which they are conversant, and so to trace, in the laws of either science, that character which is so strongly written thereon, of order, obedience, and all-wise goodness.

Whether we wing our flight to the boundless realms of Planetary space, or confine our observation with microscopic scrutiny to the minutest objects of the Globe we inhabit, we are fain to acknowledge with reverence and delight, the power, the wisdom, and the symmetry which pervade Creation: we thence discover and feel our relative situation and obligation to that great Being, whose fiat gave law to their existence, who alone wills their continuance or modification; of "the greatest as not beyond His control, of the least as not beneath His care."

To snatch from the lips of the eloquent Professor, the President of the Chemical and Mineralogical Section, (Mr. Whewell,) the words which he addressed to you last evening, "it is not that we pursue science because it is an instrument of power, or selfish gratification,—we love it for its own sake;"—even as Truth, and the Source of Truth, is loved; because it is conducive to our mutual edification and happiness, and as such therefore entitled to our highest regard: we are thus led to see its value as our necessities thicken upon us; and this, I take it, is the genuine character of all those attachments,—I speak as a member of society, and with reference to the endearing ties of domestic life,—this is the genuine character of all those attachments which gladden and humanize our existence: to grow with the perception of their moral excellencies, in exact proportion as our experience of the advantages, the suitableness, and the obligations, attendant on their cultivation, is improved and strengthened by time. It is in this kindred spirit therefore that we must rightly appreciate and study the comprehensive views of Geography and Astronomy: since we have now arrived at a period when a far more enlarged acquaintance with these sciences is imperatively requisite, to keep pace with the more extended intercourse and growing civilization of the age.

I would not be misunderstood, however, by those whom it is now my privilege to address, by some at least who may possibly have got their ideas of Geography from the miserable publications,—most puerile compilations indeed are the very best we have, although professing to treat fully of this subject. I would not have it sup-

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posed, that Mathematical Geography is a mere confused aggregation of conceits, and hypotheses, and diagrams, tumbled together: of outlines of countries projected without any regard to geometrical construction,—to systematic orthography, to object, scale, or taste, as too many of our Maps and Charts are; nor coarsely, and carelessly scored, with wavy zigzags to indicate rivers, and certain rude scratches the *universal* representatives of mountains, or rocks, although differing essentially from each other in height, character, composition, and stratification; neither would I have it understood, that Descriptive Geography consists in the usual meagre narratives of personal adventure; a sort of conglomerate,—my Geological friends will pardon me for appropriating a term from their heterogeneous nomenclature;—an *omnium gatherum* of particulars, imperfectly and negligently ascertained, and still more wretchedly put together: I would have it reduced to such precision and clearness, to such method, taste, and expression, to such judicious and intelligible distribution, under the several heads of Physical, Statistical, and Political Geography, as should acquaint the inquirer, *at a glance*, with the most remarkable features and circumstances to which his attention should be, or might have been directed. The Maps of such a system of Geography should present a striking Pictorial summary; the Memoirs, a complete Descriptive analysis, of every circumstance which can elucidate such subjects.

But, if this degree of perfection be thought unattainable, I would still draw the attention of the Geographers of the present day, to the words of D'Anville—addressed some sixty years since to the Academy of Sciences at Paris,—"Dans l'universalité de l'objet qu'embrasse la Géographie, combien sont étroites les limites de ce qu'on peut attendre de cette Géographie positive! Combien de points de vue différens, qui rendent la Science intéressante, lui sont étrangers! Si le désir de n'avoir de Géographie qu'autant qu'elle seroit en quelque manière l'empreinte du local, ne peut être qu'une chimère, n'est-il pas convenable de chercher à se procurer ce qui peut y suppléer jusqu'à un certain point de perfection? Néanmoins, si on ne pense pas que la Géographie soit une Science de pure érudition, c'est ne la pas connoître. Quelques notions de la Sphère et d'une Mécanique, qui dans un art donne des principes d'opérations pratiques, sont peu de chose en comparaison de ce que le savoir en Géographie, par un détail presqu'infini, doit rassembler de connoissances."

The most experienced of my scientific friends, whom I now see

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around me, will agree with me that Geography is at least a *progressive science*, and in this respect also, like Astronomy, is continually improved, rectified, and illustrated, by more exact observation,—and by further physical discoveries.

How much other branches of knowledge depend upon, or result from similar principles, can only be inferred from a review like that I have now epitomized. It is to the true figure of the Earth that we must look for an accurate acquaintance with the motions and distances of the planets. Geodesy supplies a base line, by which to determine the relative position of those distant orbs, and expound the primary elements of physical astronomy: it is, in fact, by recourse to the details we offer, that every problem of practical utility is reduced to positive certainty. In another Section, the Physical and Mathematical, some of my hearers may probably remember an anecdote related of the celebrated Franklin, by our President, Sir John Herschel, importing that the world were indebted to a landsman for the discovery of the art of navigation. Now, one or other of these two elements, Land, or Water, must be accurately defined; that boundary then, was assigned by Geographers. To our fixed observatories indeed, both Seaman and Hydrographer refer their astronomical and chronometrical observations,—while the conformation and height of the cliffs and mountains, skirting the ocean, are recognized as the most unequivocal indications of the part submerged,—of the bed of that ocean on which he is to cast his anchor; to coast, as inviting his peculiar craft, or to shun, as otherwise dangerous of access.

Every Nautical observation possesses an interest, so far only as it is connected with terra firma, the proper abode of man;—at the same time, the medium by which a more extensive intercourse is facilitated between the remotest parts of the globe, furnishes a conclusive argument of the intimate connection between Geography and Astronomy, since this last is the science which mutually determines the boundaries of land and water. And indeed whatever, qualifies, or affects those great laws of temperature, of the winds, of the tides and currents of the ocean, is attributable to the quantity, to the form, and to the elevation of the land, with respect to the fluid by which it is surrounded; joined to its situation in respect of the Equatorial and polar regions:—for all these would otherwise be extremely simple, and uniformly explicable, admitting that the outline, elevation, and proportion of the land had been otherwise than it now is.

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Hence, therefore, the Geologist is absolutely dependant on accurate Geographical data for all sound and rational conclusions, explanatory of those remarkable proofs of a warmer temperature in high latitudes, indicated by the fossil remains of many extinct species of animals and plants: and although we might aver, from analogy, that they could only subsist in tropical climates, we deduce the probability of such change of temperature, by reasoning from facts within our reach; facts which are so much the more valuable, intelligible, and conclusive, as they result from accurate geographical and physical observations. Forasmuch also, as these circumstances determine the habitation of plants and animals, and all work together to break up and prepare the crust of the earth for the sustenance and abode of man,—it is to a better acquaintance with these particulars that we are to look for the extension of those enjoyments and limits, which the earth is calculated to afford to increasing numbers, to the demands also of progressive civilization.

The Geologist finds every improvement in Geography furnish new matter of study and speculation; the Meteorologist, the Botanist, and the Zoologist, ultimately defer the generalization of their researches to that exact geography for which we now contend: to arrest the progress of the latter, is undoubtedly the greatest hindrance to the philosophical cultivation of every other branch of Natural History. I have thus thrown together my own ideas of Geography, and stated its amazing importance to the lovers of science—"une science," says Danville, "qui est infiniment utile sous quelque point de vue qu'on la considere," But it has yet another and more grand attraction for those who study it as illustrating the theatre of events that have long passed away, or holding out to the Statesman and the Philanthropist a rational prospect of the capabilities of regions as yet imperfectly explored, the scene perhaps of future achievements, when the human race shall have greatly multiplied beyond its present numbers,—nay, more than all, when every corner of the earth shall be brought, throughout its length and breadth, under the power and spirit of the Gospel.

Vainly do we contemplate the changes which have supervened, or but faintly perceive in the page of the historian that instructive "philosophy which teaches by example," if unacquainted with the geographical, and ethnographical divisions which then influenced the movements of society, which now at length we surely might have anticipated from the progress which has been made in other matters. The site of Babylon, of Nineveh, of Idumæa, of Oojein,

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or of Troy,—the sources and course of the Euphrates, the Niger, or the Indus,—the former limits of the Caspian, the Indian Run, and the North American Lakes,—might possibly throw a degree of light on the early migrations of society, which are now veiled in the darkest obscurity, from our imperfect knowledge of Geography. To the neighbourhood of the former, and the mouths of the Euphrates, our sympathies are called to numerous simple tribes, who profess no other baptism than that of St. John, the precursor of our Lord. To Mosul, the seat of ancient Nineveh, the Christian world may look for the recovery of those numerous Christians, the Nestorians and Chaldanees, to the tenets and blessings of a purer faith, which now they desire to recognize in common with the Church of England. The very difficulty of pointing out the exact site of those great cities that have perished, and "whose memorial has perished with them,"—confirms and gilds the prophetic page. It tells what the inhabiters of earth have been, it tells what they will be.

Shall we then leave the Missionary uninformed of all the encouragements which this or that country presents, for the dissemination of the gospel? Do we imagine that any sums of money collected here, that any number of men sent abroad, without a knowledge of the climate, the people, or countries they go to, can civilize and bring over the helpless besotted Heathen to a sense of the value of Christianity, if we omit to entertain the precautionary measure, which science should dictate, by which his health and comfort should be provided for, and his opportunities of usefulness enhanced? I remember to have heard a dear friend and faithful Missionary, the late Rev. Gordon Hall, observe on hearing of our vast territorial acquisitions in Burmah, that "we were not to think these conferred on the British Crown without a purpose; that he was sure this was the highest it could have been entrusted with,—to propagate there the privileges of sound religious liberty, and a pure faith,—so that the border nations of China and Siam, inaccessible from other quarters, might in some sort, through their ministry, participate likewise in a common benefit." It is fair to conclude as much of science, nor can any reflecting mind look on the strides it is now making, and imagine it is permitted to advance without the same All-wise intention. Subserving the important purpose of exploring the darkest recesses of Nature, it should also light up the darkest retreats of Humanity. Nay, my friends, if we really desire success to the one or to the other, to Science or to Missionary enterprise,—we must first improve Geography.

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Having said thus much as to my individual views of Geography, I revert to the other subject which it devolves on me to explain,—the nature and progress of the various Surveys carrying on under the authority of the East India Company. They extend to no inconsiderable portion of the shores, and undoubtedly to the most valuable and promising region of Asia. I need not say much as to our acquisitions in that quarter;—we acquired them chiefly by the instrumentality and prowess of Clive; for he laid the foundation of those fortunes which have been followed up, as he foresaw, by successive additions to our power, till we are at length undisputed masters of India. Whosoever is desirous to know more of our early conquests, will do well to study them, elegantly and faithfully as they are narrated by our own Historians, Orme and Malcolm, or epitomised by Mill, from those rich and voluminous records, which have been communicated by our countrymen in India.

From the elaborate and philosophical work of Mill, the reader will infer, that however much we owe to the individual bravery and discipline of a mere handful of soldiery, we are largely indebted to that disunion, to that entire extinction of all patriotism, good faith, and private virtue, which is ever consequent on despotism, ignorance, and superstition. Let him contrast these conquests with those of the Spaniards and Portuguese in the new world; with those of the Romans in a former age, or of the Mahomedans in after times;—he will then understand whence power is acquired, and by what errors the sword of the victor quails to the meanest adversaries.

What memorials, he will naturally inquire, have these nations left in all their colonies? where also are the characteristics of their superiority?—Do *we* contemplate any enduring memorials of the British ascendancy,—it must be in such as are characteristic of the British people:—the diffusion of *sound education*;—the administration of *just laws*;—the *improvement* of the resources of the country, and the condition of the people;—the *introduction* and *promotion* of those arts, sciences, and conveniences of life, which distinguish and enrich our own;—the *encouragement* of commerce;—the *unrestricted* interchange of manufactures and produce, not only beyond the boundaries of our territories, but within, and through every province. All these objects, however, can only be anticipated from a thorough acquaintance with the nature of the country, and of the people;—advantages notwithstanding, such as are at the unlimited command of the Government of India, far exceed those which have ever been possessed by any preceding powers; indeed,

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a more moral, efficient, and intelligent body of men, could not be instanced than those which compose the Civil and Military Services of the East India Company;—the Executive, and the Soldiery, by whom that great Empire has been subjugated, and is still maintained. In the Engineer profession I presume there are sufficient officers, perfectly competent to the great undertakings which are so much required to throw open and improve the provinces in the interior, by the construction of roads, canals, and great public edifices. There is also no want of wealth for such designs, in which I know the Natives would gladly participate, under proper protection and encouragement. I will defer these topics, however, to the notice of our geographical acquisitions.

You have heard, at our previous Meeting, from Major Portlock of the Royal Engineers, who is employed on the Ordnance Survey of Ireland, that we are principally indebted for the British, as for this and most Surveys, to the exigencies of war. The scope of such Geography was then limited to specific wants, to bring under one view such materials and information as would facilitate the distribution and concentration of troops,—or the ready supply of necessaries for their subsistence. It has undergone no material change from its imperfect state in those early times, when the Military art was first reduced to some sort of system under the Romans, till the middle of the 18th century. The Maps of that period were, generally speaking, mere itineraries, having more or less accuracy as they were corrected by frequent astronomical observations, or founded on actual measurement.

In this state of things it was reasonable to expect that some information would be obtained of those parts of India which had been traversed by our armies. In 1759, the want of such Maps became apparent to the Government of India, and no pains or expense were neglected to procure the best materials that could be had. The industry of Col. Charles Reynolds furnished a surprisingly exact outline of the Western part of the Peninsula, and a considerable portion of Hindoosthan,—compiled chiefly from native information,—corrected at intervals by the latitudes and longitudes of the most remarkable places on the coast, which he obtained from Captains McCluer, Huddart, Howe, and other Naval Officers.

But I should not do justice to this subject were I to pass over the names of my distinguished predecessors, Reuben Burrowes, Colebrooke, Major Rennel, and Colonel Mackenzie, and to crown the list of these, the names of Lambton and of Everest. To the two

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latter we are indebted for all that is worthy of note as regards Geodesy, or the purely scientific department of the Indian Survey; —to Rennel and Mackenzie we owe the best and largest share of our geographical and statistical information. Of Major Rennel you have all heard;—he was the first and greatest Geographer that this country has ever produced. With a mind singularly constituted to elicit and apply every useful fact,—like the illustrious Danville, he selected his materials with such extraordinary judgment, and arranged them with such tact, that the positions he has assigned to many important places throughout India, from data, that would to most of us be inconceivably perplexing,—agree in a very remarkable manner with the results of astronomical and geodetical observation. Nor did this acumen, or skill, stop here. His beautiful illustrations of the Retreat of the Ten Thousand,—of Herodotus, and of Xenophon, are familiar to many of you:—the light he threw on the obscure notices of travellers, relative to the interior of Africa, is still the theme of admiration;— and lastly, his remarks on the Currents of the Ocean entitle him to our respect as a philosopher, in whom were met those rare accomplishments essential to generalize insulated facts. Of Colonel Colin Mackenzie I could say much.—His was the faculty of combining Statistics with Topography,—of subjecting all the details of Surveying to a methodical analysis,—so as to present a connected digest of the resources, the situation, and the history;—to which last pursuit, more particularly, the Ancient history, he paid very great attention. There are others, Topping, Col. Kelly, and Moncrieff, but I will pass on to Lambton, and here I must make a short digression. You have been accustomed to expatiate on the merits of the Duke of Wellington as a Soldier and a Senator, yet there are endowments in that great man which are not sufficiently known. Whoever will be at the pains to criticize the early correspondence of Colonel A. Wellesley, in India, by Colonel Gurwood, and in Gleig's Life of Sir T. Munro, will agree that his was always a gifted mind,—a mind which could single out and appreciate talent, arraying in anticipation the prospective advantages which would accrue to his country by the appliances of science. This was it which induced him to befriend Lambton, then one of the officers of his own corps, and to recommend his suggestions to the Marquis Wellesley, Govr. General of India. An embassy having been sent to China by the British Government, it was supposed, as the Chinese prided themselves on the high antiquity of their Astronomy and

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Mathematics, that the Grandees of the Celestial Empire would be glad to have some good astronomical apparatus; whereupon, a fine theodolite, a sector, and a steel chain, similar to that used by General Roy in the measurement of the bases of the Survey of Great Britain, were dispatched as presents; but the Emperor declining to see our Ambassador, Lord Macartney,—these valuable instruments were brought back and put up to public sale at Madras, by Dr. Dinwiddie, Physician to the Embassy, to whom they had been assigned by Lord Macartney, in part compensation for his services. At Lambton's suggestion they were purchased on behalf of Government, and with them the measurement of an Arc of the meridian, in India, was first undertaken by that officer.

This useful and laborious work has been carried on from that time, 1800, to the present, by Colonel Lambton and Colonel Everest. The former died on his post, in 1823, at Hingungaon, at the advanced age of 73,—his energies carrying him through to the very last;—an example of that philosophic devotion which unites patience and energy with a high degree of intellectual ability. I may be pardoned for reading to you a short extract which I made from the last report he ever wrote. It is touchingly expressive. "It is now upwards of twenty years since I commenced the Survey on this great scale. These years I may venture to say have been devoted with unremitted zeal to the cause of science, and if the learned world be satisfied that I have been successful in promoting its interests, that will constitute my greatest reward. In this long period of time, a considerable portion of the life of man, I have scarcely experienced a heavy hour; such is the case when the human mind is absorbed in pursuits that call its powers into action:—a man so engaged, his time passes on insensibly, and if his efforts are successful, his reward is great, and a retrospect of his labours will afford him an endless gratification. If such should be my lot, I shall close my career with heartfelt satisfaction, and look back with unceasing delight to the years I have passed in India." This grand scientific enterprise, which at Colonel Lambton's death, embraced an amplitude of 11 degrees from Punnae, in 8 degrees North latitude, to the frontiers of the Peninsula, has been subsequently continued with unwearied resolution and ability, by Colonel Geo. Everest, and is now on the eve of completion, as we learn by recent letters:—in these he announces that the whole of the terrestrial operations have been successfully brought to a close, some few additional celestial observations only remaining to complete the great-

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est, and, probably the most accurate, service of the kind that has ever yet been accomplished or attempted in the annals of science. This encomium will be fully admitted when we consider that it comprises a total amplitude of about 23°, or nearly one-sixteenth of the entire circumference of the globe. Two series of triangles diverge laterally from the main trunk, connecting Bombay and Calcutta; added to which, about three-fourths of the Peninsula, and several collateral series, on as many distinct meridians, throughout the lower provinces of Bengal, have placed the exact site of many considerable towns in British India beyond a doubt.

The connection thus established between the Observatories at the principal seats of Government, the chief resort also of our navy, supplies a most important desideratum in Geography, which will no doubt, under judicious provisions, contribute very materially to the correct determination of the latitude and longitude of many other ports and dangers on the shores of Asia. More in fact is to be gained in Hydrography, as I have already hinted, by establishing the true place and bearing of a few fixed Observatories on terra firma, simply as starting points, than from a thousand unconnected, or disputed points of departure. For this reason we cannot contend too urgently for the repeated verification of these positions; they serve as it were for a basement on which to rest the entire superstructure of Nautical and Geographical Surveys; they constitute, in fine, a sort of half-way house between the earth and heavens, to which any phænomena may be referred, or by which any changes, either in the celestial worlds, or this planet, can be satisfactorily registered, and ultimately determined.

The Maritime Surveys, which have been made by the East India Company's Naval Officers, are honorable to the spirit of that great public body, at whose desire they were instituted. A series of Charts of the entire coast of China, by my friend Captain Daniel Ross, I. N.; and others, illustrating the ports, rivers, and coasts, from Cochin China, and throughout the Malayan Archipelago to the confines of India, by Captains Crawford, Robinson, and Ross, —are highly useful to the navigators who frequent those seas. A comparatively small expense and exertion would, with such materials, put the Indian Government and the public, in possession of the principal geographical features of that long and narrow peninsula which stretches to the South-east of our territories;—probably also open out many valuable sources of commerce; by establishing also a friendly interchange of produce, paralyze, or put down, those piratical aggressions which preclude the civilization of the Eastern

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Islands. The Surveys of the Persian Gulf and the Red Sea, by Captains Maughan, Brucks, Haynes, and other officers of the Indian Navy, have been undertaken at great charge, most opportunely indeed, for the furtherance of steam communication between this country and India.

The recent Surveys of the Maldives and Laccadives, by Captain Moresby, will probably elicit some interesting particulars relative to the formation of those coral reefs which abound in the Indian Ocean. The changes which have taken place within the last century both on the Eastern and Western shores of India, lead to the conclusion that many stupendous alterations in the form and depth of the waters on the coast are now in progress;—tending to evidence the recession of the ocean on the one hand, and its encroachment on the other. This, in my opinion, is particularly the case in respect of the neighbourhood of Bombay, unquestionably one of the finest harbours in the world. The fact of such change has been made the subject of a warm and most unsatisfactory discussion between the late Admiral Sir R. King and the officers of the Indian Navy. Such inferences however will be more speedily arrived at by an examination of the Gulf of Cambay, the increase of the Deltas of the Indus, Godavery, Ganges, and Bruhmapootra, and the effects consequent on the opening of the Paumbum passage, between the Island of Ceylon and the main land. In the Bore of the former, to which the public attention has been drawn by a paper of Lieut. Ethersey, I. N., there is a novel and grand opportunity for deducing the law of waves, which has been handled in so masterly a manner by Mr. Russell and Sir John Robison.

In pursuing the multiplicity of researches which thus obtrude themselves in a Hydrographical Survey like that under consideration,—there is ample scope for the most indefatigable and ardent mind,—the variations in the form of the coast; the progress of coralline formation in the Red Sea, the Maldives, and Laccadives;—the quantity of detritus yearly brought down to the sea by the Euphrates, the Indus, the Nurbhudda, Kavery, Krishna, Godavery, Ganges, Bruhmapootra, and lastly, the Irawaddi;—the increase to their Deltas;—and the proportionate velocity of their currents to the respective length and fall, with the quantity of detritus held in solution, or deposited from time to time:—Such investigations, simply in reference to their respective geological bearing and tributary streams,—open out an indefinite field of the very highest interest to science.

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There are the tides of the Ocean moreover, which, apart from the important bearing of their laws on Physical astronomy, are most necessary to be well understood for the construction and maintenance of docks and harbours,—the preservation of embankments, the deepening of river beds, and in short, as the best pledge, or criterion for the undertaking or discontinuance of great and expensive Maritime works.

I should be sorry to have it concluded, by any persons here present, that I had merely introduced these remarks in a loose speculative way, for the sole purpose of garnishing my observations. I have, at various times, considered the subject with deep attention, during a long residence in India,—and with Smeaton's reports of what has been done in England, with Prony's and Cuvier's of those on the Continent, I have satisfied myself that the changes now in course of exhibition, on the Western coast of India, absolutely invite the most improvident and apathetic Government to take possession of, and bring under cultivation, enormous tracts of rich alluvial land, capable of sustaining a dense and industrious population. I observed this more particularly in the islands of Goa and Salsette, the habitable parts of which, four centuries ago, must have been circumscribed within very narrow limits: but it is exemplified through the entire coast from Bancoot to the Mahee river, in Goojrat; more particularly on the shores of the Northern Concan, and Attaveesee provinces. These particulars I have frequently brought under the cognizance of the Bombay Government in my professional reports. It may be they will one day receive that attention which the mere produce of such undertakings would warrant them to encourage.

I will here remark, cursorily, that the Natives of India, and many enterprising Europeans, would gladly avail themselves of the grant of such lands, with suitable inducements, and embark capital in their recovery or improvement;—but I would advise these grants to be tantamount to Freehold, and, for security, require that the execution of such works should in all cases devolve on professional Engineer officers. These should be responsible for the design, and the due execution of such undertakings,—the entire charge and profit that of the parties to whom the grants were assigned, on such express stipulation. Then indeed the Government would see India prosper. In regard to roads, and some public works in the interior further privileges might be enacted, which should invite their execution, and ensure a reasonable and timely return of interest and capi-

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tal;—in which last case they should, thenceforth, be the property of the community. I have put this desire of the wealthier natives, to co-operate with us in such measures, to the test, in three instances: —and am confidently persuaded from experience, and their own affirmation, that it is an effectual substitute for that careful and straitened system which Government has hitherto pursued in all undertakings, however desirable, involving a large expenditure.

The construction and delineation of these Charts does very great credit to the taste and ability of Captain Houghton, who has been employed in that duty throughout, both in China and Arabia. In regard to several of the Maritime Surveys, I confess I have learnt with astonishment, that there exist few, in some cases, absolutely no written memoirs: that they have either been retained altogether by the officers who conducted the Surveys, or deposited in some of the offices in India, to the great detriment of the public interests. The Survey of the Red Sea and the Persian Gulf requires very circumstantial explanatory memoirs for navlgators, especially in the event of renewed piratical hostilities; but the meagre particulars that are to be gathered from the papers which have been sent home, ill accord with the charges, and the time, that have been devoted to their execution:—the height of the lands skirting the coasts has been unfortunately omitted, and the want of a better mode of expressing the form and character of the ground within sight of the navigable shore, is much to be regretted;—but these deficiencies are wholly attributable to the imperfection of this most necessary accompaniment of Hydrography, as well as Geography. Systematic, consistent, and correct orthography, founded on a studied acquaintance with the proper language of the country, adds very much to the utility of a chart;—the tabulated direction of the winds and currents that are most prevalent;—the isoclinal lines of soundings also, lead to the recognition of a thousand facts of considerable use. But on these points I have dwelt perhaps at greater length than my Naval friends will consider allowable. I shall briefly state, therefore, that the investigation of the Tides, has, at the suggestion of Professor Whewell and myself, been most liberally and effectually taken in hand by the East India Company, and as it may eventually devolve on me to give effect to their intentions, I engage it shall be in full accordance with these views, and those generally entertained by the British Association.

The geographical and topographical details of the Indian Survey have been carried on, since the year 1759, at an expense little short

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of one million four hundred thousand pounds, as I was credibly informed by the late General Salmond, for many years Military Secretary to the Court of Directors, E. I. C. From what I have premised respecting the Trigonometrical Survey, it would have been reasonable had more than ordinary attention been paid to the mere execution of the Topography. I wish I could say that it had any claim to comparison with that of the recent surveys of Europe:—I will candidly explain to you what I consider the occasions of its inferiority, not without hope that they may, and will, shortly be removed, convinced as I am that there is every disposition in the home authorities to forward any measure which may be calculated to realize the *public entreaties* for its improvement. I am justly proud of succeeding to an office which has been so ably filled by Rennel, and Lambton, and Everest. I have not been inattentive to this branch of my profession, in which I have served twenty-three years, and indeed, during thirteen, have been employed on the Survey of the Western Coast. I do not hazard any conjectural ideas therefore; nor assert, without a thorough examination of all the documents that have yet reached this country, that we are immeasurably behind the people of Europe, in this most useful of all sciences.

For forty years, despite of such men as Reuben Burrowes, Rennel, and MacCluer, the Surveys of India were little better than Roman Itineraries,—and so deep-rooted was the prejudice in favor of the system of measuring with an ordinary perambulator and magnetic compass, that the utility or necessity of any such corrective, as that proposed by Lambton, in a connected Triangulation, was very generally controverted. It was only by the intervention of repeated injunctions from home, suggested, very much to the honor of the Court of Directors, by their late Military Secretary, that this triangulation was suffered to proceed. Prior to the commencement of such operations, Major Rennel, of the E. I. C. Engineers, was the only one who can be said to have thoroughly understood the requirements of Geography,—but in this he stood quite alone, and his philosophical views were neither understood nor adopted by his immediate successors; or, we might now, have as far outstripped the Geographers of Europe, as then. The Memoir which accompanied Rennel's Map of India, is to this day a standard work,—an honorable proof of his industry and judgment. It will hardly be credited however, that the *original surveys* of the lower provinces of Bengal and Bahar, which he made single-handed, and from which the printed Atlas was reduced, were brought home by some

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of the high authorities in India, and treated as *private property*, till they were accidentally discovered, in the collection of a lady of rank, by General Salmond, and, with his advice, were purchased for the sum of one hundred pounds, by the Court of Directors. This incident, with others of a similar nature, may serve to show how very little some men understand the use or the public importance of such documents. Much knowledge is undoubtedly abstracted, hoarded up, or lost, from the selfish vanity of possessing a rare or unique article, which would be far better communicated to the public. That propensity, however, we confidently hope has no advocates amongst men of science.

The want of similar memoirs to that of Rennel, something at least, explanatory of the principles on which the respective Surveys were constructed,—has occasioned the greater portion of such documents to be altogether valueless :—and in most cases to serve rather to perplex, than to assist, persons unaccustomed to the critical compilation of such works. I would lay it down, therefore, as a rule, that no survey whatever, should be received, or entitled to publication, without such documentary credentials of its authenticity. It is clear that these were the maxims of D'Anville and Rennel ;—and it is the first effectual step towards correct and scientific Geography.

A farther occasion of the backward state of Indian Topography was that want of system and uniformity, in the style, orthography, and scale of the respective surveys. Each Presidency had its own school, and in many cases each individual followed his own fancy, so that the materials from which the Atlas is now compiled, differ essentially in all these requisites :—it will be thought unaccountable also, that the Trigonometrical and Geological Surveys, should have been kept quite independent of the Surveyor General's control, from their very commencement, till 1823. This anomalous procedure had not escaped the notice of the Military Secretary and Colonel Everest,—at whose recommendation these several duties merged in the Surveyor General :—still the Revenue and Statistical surveys remained quite distinct,—and were so till very recently, if indeed the orders of the Directors have yet been carried into effect ;—so that the very materials which should best supply that more perfect and valuable Geography, are separately prepared, and what is worse, they are obtained at an enormous cost to the Government, without any permanent utility, or connexion, with the general triangulation of India. All officers who have had experience in

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these matters in India, and many distinguished persons in this country, concur with me, that every survey which is not the result of science and system,—is so much positive sacrifice of time, money, and life;—a prodigal and unjustifiable waste of public property,—which needs but to be properly represented to be obviated in all time to come.

If the object of a survey were of some temporary nature, or of limited application, such course might suit, in some instances, both the purpose and the public purse;—but when we compute the sums disbursed, and set them against what we have now to show for such outlay,—with reference to the general applicability of a good survey, on a sufficiently large scale, accompanied by explanatory memoirs, to the *ordinary* wants of Government, the case is one of the greatest extravagance and inexpediency. The conclusion I press upon the authorities, is, to collect together all the materials that we now have;—to retain those only which are deserving of it;—then to proceed with all the helps we have got from past experience,—resolutely ordering all such steps with the strictest regard to economy, so far as it consists with the claims and requisites of science. In fulfilment of this plan, some discretionary powers in the choice of the machinery, the selection of the officers, and general management of the details; a much larger share of responsibility, in short, must necessarily devolve on the Director;—but, I am sure, it is a responsibility which no man, who has the slightest pretension to science or character, would either vainly arrogate, or wantonly abuse. His reputation, his success, his interest, depend on the issue of his suggestions, and that essential confidence will I trust, at length, be placed in the officer who has been provisionally appointed to succeed to the Surveyor Generalship of India. It is to this implicit confidence that we are indebted in this country for the great improvement in the Admiralty and Ordnance Surveys, under Captain Beaufort, R. N., and Colonel Colby, R. E.: the same powers also have been delegated to the Director of the Depôt de la Guerre in France, General Pelêt, of the Corps du Genie; and to all the Directors of the great Continental Surveys of Austria, Saxony, and Russia, Colonels Schriebenach, Oberreit, and Schubert. It is but reasonable therefore to conclude, that very weighty reasons have prevailed over other considerations, in a country where every avenue to patronage is so jealously guarded and circumscribed;—reasons, dictated by universal experience, and the great efficiency of the public service.

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Without entering into any more particular consideration of the several provincial surveys, I shall only observe, in a very general way, that the Madras surveys, under Colonel Mackenzie, and his assistants, Captains Garling, Ward, Connor, Mr. Turnbull, and other officers, bespeak an anxiety to forward the objects of the public service, and of Geography, which is highly commendable. The Surveys of Hydrabad, Tritchinopoly, and the Northern Circars, are great improvements on the earlier surveys, yet they are not so complete as those of Mysore, Malabar, Goa, and Travancore, in Statistical and Descriptive memoirs. On the whole, however, these surveys are very inferior, in topographical detail and expression, to the continental geography of Europe. Whatever merit they possess, is principally owing to the master spirit and direction of Colonel Mackenzie, and, under his orders, to the instruction of Captain Troyer, and the Madras Military Institution.

The Surveys of the Bombay Presidency certainly rank next. That of Bombay and Salsette, by Colonel Dickenson and Captain Tate, of the Engineers, surpasses every other throughout India, in accuracy, elegance, and completeness. It is allowed, by the first judges in England, to be one of the most beautiful specimens of Topography that they have seen. It was accompanied by a very detailed statistical memoir. Major Jopp's Surveys are admirable in the general expression, but they are not accompanied by any memoir, either of their construction, or physical and statistical details:—the scale also is not sufficiently large to admit of such illustration; or, in truth, for any civil purpose, beyond an acquaintance with the actual bearing, and distance, of places from each other, and the relative situation of the mountain ranges, passes, and rivers:—beyond this, whether forest, cultivation, or waste; whether rocky, productive, or populous, we can infer absolutely nothing—and the same remark, we regret to say, was precluded, in the Survey of the whole coast, from Goa to Duman, by the strict injunctions to reduce the scale from two inches to the mile, on which it was first laid down, to half an inch to the mile; just one sixteenth. In this latter survey however, I have shown in separate maps the Geographical distribution of the indigenous plants, the Statistics of Revenue, Commerce, Education, Industry, Crime, Slavery, Religion, Language, Caste, and general Distribution of the population,—amounting to about 1,200,000 souls. These maps were retained in India; but, as I have now a

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much wider field to explore, I hope to extend the illustrations of this provincial survey to every part of the British territories.

The memoir which accompanied these maps enumerates many curious facts very much at variance with the received opinions of the state, and early history of India; I will instance only a few of these.—The tribes occupying the mountain fastnesses and wilds, though distinguished by a variety of appellations, as Bheels, Coolees, Ramoosees, Mangs, Beruds, Wuddars, &c., appear to have a common language with the natives of Gondwana, the Pendharees of the Vindhya range, and Telingana,—the mountaineers of the Girnar range, in Kattiawar,—the Todawurs and Kotars of the Nilgherries, —and the Bedahs of Travancore and Ceylon. This language has many words in common with the Teloogoo, and is remarkable as having a dual number, indicative of greater refinement and antiquity than the existing vernacular languages of India. They have no Pantheistic worship; they acknowledge no deference to the prevailing institutions of the Hindoos;—they are simple, warlike, aud migratory;—they have the ancient year of the Egyptians of 360 days, with the five days additional;—they observe the winter solstice, and some festivals unknown to the Hindoos;—they neither worship living objects, the sun, moon, nor other symbols,—neither do they venerate the Brahmin;—their history, in fact, points to a period of very remote antiquity, antecedent to the existing worship and settlement of India. Their neglected rights, through disregard of the successive ruling powers for many centuries, have given rise to the organized system of sanguinary and unparalleled murders, which have been perpetrated throughout the country with reckless impunity,—till of late they have roused the indignation of the British authorities in India. I allude to the execrable system of the Dakoits and Thugs.

To legislate for India without acknowledging their claim, or, in fact, taking the slightest account of the existence of this most ancient, and highly interesting portion of the population of India, savours of negligence or indifference, if not of ignorance and injustice. It may perhaps be a question with some of you, what is the proportion they bear to the whole population of India, and what may be the aggregate numbers of this *aboriginal* population? I speak within bounds, certainly, when I say from two to three millions of souls,—in Kuttack, Khandesh, Kattiawar, Goojrat, Nagpoor, Hydrabad, the North Konkun, and South Malabar, they constitute two-fifths of the entire population;—in Hindoosthan, the Deccan, Mysoor,

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the South Konkun, Kanara, Travancore, and the entire Carnatic,—they may amount to one-tenth. I affirm at least this much, that they are sufficiently numerous to entitle them to a place in our legislative provisions, certainly to bespeak the consideration of every friend of humanity, though they are excluded from the *benevolent* Code of the Hindoo. I say it would be highly desirable and important to see the numbers and situation of those *aboriginal tribes* denoted on a Statistical Map of India, as in the provincial Survey to which I have alluded.

I will add also another topic that these inquiries suggested, that the entire western coast has, from Cape Comorin to Kurachee, for upwards of eighteen centuries, been colonized by successive nations, Romans, Greeks, Persians, Arabians, Abyssinians, Africans, Jews, Armenians, Malays, Chinese, and lastly, by Europeans, by natives of Central Asia and Upper Hindoosthan,—so that it is not easy to discriminate, even amongst the existing castes and distinctions of the population, whence they are, and what their claims to priority, without residing among them for a very long time. These conclusions I have arrived at from a multitude of remarkable particulars which have fallen in my way in the researches I have made for many years, into the Chronology, History, Literature, and Arts, of the Hindoos. I am thus enabled to trace the steps of the Western nations, and their intercourse with the East; to recognize the overthrow of the Boodhist faith, shortly after the Birth of Christ; the contest of the Jains, and the Brahmins; the supplanting and retreat of the Jains from Hindoosthan and Goojrat, to the Southern provinces of the Peninsula, about the sixth century after Christ; finally, the settlement of the Hindoo or Brahminical worship on its present basis,—nearly about the time of the introduction of Mohamedanism,—that is, about A. D. 607-8. The existence of Christian missions, and two Christian bishops, on the Western coast of India, one settled at Kullian, in the Northern Konkun, the other in Travancore, in the first century after Christ: the settlement of a colony of Jews at various places on the coast, and in the interior;—of the Persians, followers of Zoroaster; of the Borahs, from the coast of Yemen, in Arabia; which last tribes had fled before their persecutors, the locust followers of Mohamedanism:—these, all, impart a singular interest to such Statistical inquiries.

I shall only mention one further instance of the utility of such investigations. It appears from the geographical distribution of

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plants that the existence of many species indicates the advantage with which their foreign congeners may be introduced and cultivated :—the coffee, for instance,—tobacco, various kinds of sugar-cane, hemp, cotton, and indigo ; maize, tapioca, arrow-root, cardamoms, the leguminous plants of Europe, the potatoe, onion, and carrot :—it discourages also the culture of others,—the vine, the tea plant, opium, oats,—and on all the coast,—of wheat, barley, and flax. It points out the prodigious benefits to which a large variety of wild plants might be converted ; not only in times of scarcity, but as a wholesome and nutritive substitute for deleterious, or a resource for scarcity of supplies of abundant, food in seasons of drought. The pitch of the various Cycas,—the Elate Sylvestris ;—a great variety of Scitamineous plants, such as the Curcuma, Alpinia, Canna,—several water plants, the Globba, the Nymphæa : these, which are distributed with the most lavish profusion over vast tracts of mountain, fen, and wilderness, bespeak an indulgent consideration for such speculations. The principal spice plants, for which we are now indebted to the Islands of the Malayan Archipelago, are indigenous on the slopes of that mountainous region, which characterizes the western Table-land of the Peninsula, and Hindoosthan. The Nutmeg attains a greater size throughout Kanara, Malabar, and Travancore, and wherever it has been suffered to grow, in the Konkun also, than in the Malay Islands. Its produce, indeed, is comparatively scanty and poor ; principally, because it is left to the innumerable birds and insects of the forests. The bread-fruit, cinnamon, various kinds of pepper, cardamom, ginger, turmeric ;—the orange, citron, lime, guava, mangosteen, mango, anacardium, and other fruits, available to domestic use ;—escape the notice of the traveller, hurrying over vast tracts, where the noxious miasmata, engendered by an accumulation of decayed and rank vegetation, almost impenetrable to the sun's rays, repress the most eager curiosity.

Let me pause here awhile, to pay a tribute of respect to two officers, who thus lost their lives,—and, but for which, we might now have had a better knowledge of these matters :—one, whose friendship I valued, no less than some, perhaps here present ;—the amiable Turnbull Christie,—an accomplished Geologist, the pupil of Brogniart, Lyell, and Elie de Beaumont :—the other, Mr. Voysey,—whose rare qualifications, enthusiasm, and disposition, might claim a nobler eulogium. Mr. Christie fell a sacrifice to his zeal, by a fever contracted in the bamboo forests which encircle the

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Nilgherries. Mr. Voysey, by a like enterprise, in the interminable forests North of Nagpoor.—Captain Arthur in Malabar, Mr. Marshall, also, in the Southern Mharatta country, terminated a no less honourable career in these pursuits. Mr. Letchenault de la Tour, Col. Skyes, Baron Charles Hügel, Drs. Rottler, Roxburgh, Royle, Wight, and Wallich, have satisfied us that these occupations are not always fatal; certainly not unworthy the distinguished and munificent patronage they have received from the East India Company. The works of Roxburgh and Wallich are allowed, on all hands, to be noble memorials of this munificence.

In regard to the general Survey of the remainder of the territories, under the Bombay Presidency, by Colonel Monier Williams, Captains Cruickshank and Ovans, they fall under the general definition of mere itineraries, and ordinary field surveys, executed, and for the most part laid down, without the slightest pretensions to scientific mathematical projection. Captains Drummond and Nutt, of the Engineers, the pupils of General Reynolds, did indeed, for a short time, give hope of some improvements,—but their services were withdrawn by the prevailing influence of those who deprecated scientific geography. The revenue surveys of Broach, Surat, Khera, and Ahmedabad, are in great detail, and accompanied with a variety of Statistical information. Having no connection however with the Trigonometrical and Topographical survey,—constructed, it must be confessed, without any regard to rigorous mathematical rules,—the charges incurred on this account have, in a measure, been most improvident and extravagant. An original document of this sort, though it be ever so well done, will, in process of time, be obliterated or much damaged in a public office in India,—considering it has frequently to pass into hands which take very little account of its real value, or the time, trouble, and cost of its execution. It may very reasonably be expected, that unless such documents are printed,—and, unless they are well and scientifically completed, they are not worthy of it;—it may soon be expected that some, the greater part, nay perhaps all, will shortly disappear,—except only, when copies may be made, which must always be less perfect, less exact, and vastly more expensive. Even then, they are only accessible to a few; and no large agricultural improvements, or great civil works, can be undertaken, to which they should properly call the attention of Government, and the Civil Authorities. We say nothing of disputed boundaries; of defining private and public property;—of assisting judicial decisions:—these, a correct

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ground-plan ought to facilitate, if not to discourage and prevent litigation. These matters occur to my mind from a fact incidentally mentioned by Colonel Hodgson, formerly Revenue Surveyor General of Bengal,—that a considerable number of such surveys, made at that presidency, under his orders, were not now forthcoming in England:—and upon another authority, that in the settlement of some extensive landed property in Chittagong, inquiries were made in vain as to the site and nature of the estate in dispute. When we place these defects to the account of the large sums disbursed for such purposes,—sums certainly sufficient to have ensured as good and scientific a survey as the great Austrian Cadastre, or the Irish Survey,—had they been confided to the superintendance of professional Engineer officers, under the Surveyor General; I cannot but think it a measure deserving of the most serious consideration, in a financial, as well as in a prudential, point of view.

A work of this sort is public property, and ought to be so well ordered, carried out, and perpetuated, as to be generally available to the community. We have hitherto stopped short, supposing the object fulfilled, when the Manuscript Drafts are completed, and deposited in the archives of the Government; but this were, indeed, a strange oversight of the value of the art of printing, to hazard the toil of years,—and the enormous sums expended in the preparation of such works, upon some one or two copies, subject to a thousand contingencies, to a fire, a robbery, to individual negligence, malversation, or casualty of any sort. Provided such Surveys were generally useful, properly conducted, and accurately engraved, they could not fail of being in some demand:—at least, they would be more extensively available to the Government functionaries,—and if it were a matter of policy that any should not be published, or put into general circulation, it would be as easy to give effect to such intention, as to forbid copies being illicitly communicated. That is a weak Government, however, which is driven to such expedients. Capt. Burnes, whom I instructed in all the preparatory essentials of geography, told me that the Governor General took him aside, before he started on his expedition through Central Asia, and put into his hands Mouraviev's Journal,—the publication, or very existence of which, no doubt, the Russian Government had studiously interdicted, and concealed, as it at once unmasked the designs of that power; little imagining that it had found its way to the chief authority in India, despite of its

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utmost vigilance. Lord W. Bentinck, also, on his late visit to Paris, was surprised to find suspended at the Depôt de la Guerre a very complete Map of India, on which was indicated the disposition of the forces, and military posts, corrected to the latest date. Now, it is hardly credible in regard to this document, that it was drawn up from other than ordinary public sources of information, Registers, Public Journals, from materials, in fact, accessible to every one: yet both instances show how little the strictest policy can avail to secrecy: wherefore, it is obviously the better course to be independent of such indifferent securities, when injunctions to the observance of secrecy, may be defeated by sinister causes, beyond the reach of authority.

I will relate an anecdote which was communicated to me on the authority of one of the parties to whom the subject was referred for opinion, of the genuineness of which I entertain no doubt. A foreigner, as it may be supposed, in the Russian service, brought to this country, and tendered for sale to the East India Company, a MSS. Map and Memoir of the interior of Central Asia, not far removed from the British possessions; either constructed, or purporting to have been made, by Klaproth, the celebrated Orientalist and Traveller, in the pay of Russia. Whether the price demanded was considered too high, that the information was not wanted, was scanty, or, which is most probable of all, that some one about the India House knew more of the real merits of the production, than the party tendering it had anticipated:—suffice it to say, it was declined for some reasons, and thereupon offered at the office of one of the Secretaries of State, and purchased for the British Government,—avowedly as a geographical work of considerable merit, and in a political view, of great importance. The contents were rigorously examined with other materials, and found to tally in some points with Klaproth's journals, though got up for the purpose of misleading the authorities in this country. Now what can prove the absurdity of locking up geographical information more than this, when the very Ministers of the Crown, at least the Secretary of War,—who should best have provided for the protection and integrity of our Indian frontiers, were left at the mercy of foreign information, that might have been easily and better supplied by the professional Surveyors in India. At present, it must appear matter of surprise to find that the information, when thus collected by the Surveyor General, is either handed over to a person, quite independent of his control, to lithograph, Mr. Tassin in

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Calcutta; or is suffered to await the usual chances of destruction, to be as little appreciated as known, in some official repository. We confidently believe this system will have an end, as it forms no part of the policy of the Directors of the East India Company, who have afforded those in search of such documents, the most prompt and liberal access.

The Surveys of the Bengal Presidency which have hitherto reached this country, are altogether of a much more imperfect nature; those only excepted by Majors Rennel, and Colvin, Lieutenants Boileau, and Buxton, of the Engineers, and Captain Wilcox. The Surveys of Bundlekund, and the Northern Sheets of the Atlas, bordering on the Himalaya range, have been unfortunately engraved before they have been adjusted to the great Trigonometrical Survey, and abound in inaccuracies. The *Vernicular illustrations* —designed to represent that magnificent and lofty chain, which separates our own possessions from those of China,—are *purely imaginary*;—a word to be received however, when applied to geographical embellishment, with some qualification. I add, with regret, that we have very few, and those most scanty, memoirs of all these surveys,—although it is well known they have been drawn up, and occasionally brought to light.

There is yet another subject on which I will briefly comment,—the preparation of Statistical, Revenue, Geological, and Geographical details, under so many separate superintendents. Is it that it is more advisable, on the ground of economy, or of science? Experience replies in the negative. It is decidedly inexpedient on every ground:—that which has to be done, should be done at the least expense, and it will be done at the least expense when all are carried on at one and the same time, by parties competent to undertake them without distraction, or liability to be called off to other pursuits. The medical profession, however well educated, have other pursuits, which if properly attended to, are sufficient to engross all their time and energies. In all other countries, these duties have devolved, as a measure of economy and expediency, on the officers directing the surveys; such illustrative researches falling in, as a matter of course, with many others of daily professional observation, and considered essential to the descriptive memoirs. Such documents can neither be hoped for, nor attempted, without means; much less can they be expected of persons thus engaged, if taken from the service at large, without the aids of a scientific education. Comparing the result of Rennel's memoirs with the

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meagre details furnished by Dr. Buchanan, in the N. W. Provinces, —though the latter, according to the Indian mode of procedure, cost 30,000 Rs. to compile, and the former entailed no expense beyond the usual official salary of the Surveyor General, it must be evident that such charges are extra-official, unnecessary, and unadvisable, as they divide and deteriorate from the general usefulness of Geography. If the officers of that Professional Arm, instructed at great charge, and with so much care, be set apart from the rest of the army, and entrusted, where there are no civil engineers, with the design and execution of all civil works,—either they are sufficient in numbers, and competent to such duties, or there should be an addition made to that body, and their competency provided for by better instruction. Practice makes perfect;—and I am persuaded there is neither want of intelligence, skill, nor integrity, in the corps of Engineers of the army of India:—considering the elêves are selected on the same principle as those of every other army throughout Europe, and, as far as the time allotted to their education will admit of it,—have the same opportunities and advantages of acquiring knowledge. It would be better indeed if some thought were given by the Home authorities to the further detention and improvement of the younger officers of this useful body,—in Civil Engineering, including a knowledge of Steam Apparatus, Rail-roads, &c., Geology, Surveying, Astronomy, and Architecture,—similar to the system pursued in the Ecole Polytechnique, in France, where the junior officers of the Corps du Genie are kept to these studies till they are eminently proficient. Of this school were Carnot, Prony, Lacroix, Legendre, &c.

It was not till after a patient review of every circumstance which I have now placed before you, that I ventured to question how far we had neglected the necessary precautions, or been inattentive to the experience of our neighbours throughout Europe. When I was appointed to this responsible office, I acknowledged, as became me, my obligation to those who had conferred this honor on me, not without a resolution to shut my eyes to all private considerations, or personal convenience. I sought the best information I could get,—and after looking carefully into the systems pursued in France, Austria, Italy, Saxony, this country, and in Ireland, I came to the conclusion that the method practised in the latter is wonderfully calculated to fulfil all those desiderata which I have enumerated. Major Portlock, of the Engineers, is better able than I am, to explain the admirable process by which, to adopt Colonel Colby's own

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expression,—"a very large quantity of work is accomplished with the minimum of intellect," by which the labour is so subdivided and distributed, as to enable him with the aid of 200 Engineer soldiers,—under the direction of 20 officers of the Royal Engineers,—to survey, complete, and publish, 300 sheets, on an average, annually,—each sheet when engraved, calculated to contain 32,000 feet, by 21,000 feet. These soldiers were instructed and disciplined in the first instance, under Colonel Pasley, of the Royal Engineers, at Chatham, and when thoroughly grounded in the elementary principles of Geometry, Surveying, and Plan Drawing, they were placed under the orders of Colonel Colby, and then divided off into squads, each under an officer. Colonel Colby directs the Triangulation, and superintends the whole;—Major Portlock has the direction of the Geological and Physical researches;—Lieutenant Larcom of the Engraving, Statistical, and office details,—a laborious office which he has discharged with much advantage to the public service. The district officers have each some non-commissioned Engineers, with from 70 to 150 Civil assistants; and to each of the latter, work is portioned out, restricted to certain simple operations, gradually increasing in difficulty and responsibility, with the capability, practice, and trust-worthiness of the parties:—the lowest in the scale merely measure lines with the chain, taking the offsets, and keeping a field book, as directed by the non-commissioned Engineers;—the party succeeding him, examines and inks in the work;—a third in succession computes the areas;—a fourth takes the levels;—a fifth computes and enters them on a Map. The officer breaks down the large triangulation to smaller triangles, and observes also the differences of level. It is the business of one of the officers to compute all these triangles and levels;—the non-commissioned Engineers break down the smaller triangles into others of the last degree, observing and computing the levels from those of the first,—and, in this complete net-work, the stations for the final detail measurement are pointed out to those who have all the mechanical drudgery of the survey, as described above.

Such a system answers two great ends, economy and dispatch, but it fulfils a greater, in that it obviates collusion, or the exaction from any one individual of the whole process, physical and mental; it relieves the officer of a thousand distracting, laborious, mechanical details: it is a sort of Fellenburgh School of Industry, leading men on, by the certainty that nothing can be gained by negligence or fraud, to honest, hard labour,—to pursue with single-mindedness, fidelity,

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and cheerfulness, whatever is committed to each individual's capacity; —but the arrangements of the office details and the final engraving, which are carried on by the same admirable subdivision of labour, system, and regularity, bespeak for it the highest praise. Anything connected with any individual employed, or with any part of the Survey of Ireland, may be learnt at the office at Mountjoy in ten, or fifteen minutes:—where the work was done; by whom; with what kind of instruments; what the character of the parties; his field books; his rough drafts; &c. much more indeed, than can be here stated in this short summary. The arrangement of the whole of the documents of the Survey of Ireland is comprised in a fire proof room, 19 feet square; with extraordinary order, neatness, and convenience for immediate access. But there is a part of this work on which I must dwell more at length,—the Engraving. It would be useless to have such a Survey, if the final engraving were committed to any one unconcerned in its execution, or not deeply pledged to its accuracy. I say deeply pledged, because this is what the officer conducting every Survey will be, and I am sure no one else can be so much, as he is. Let it be considered for a moment, that the persons who conduct the national Surveys in Great Britain, Ireland, in France, Italy, Saxony, Russia, Austria, and other countries, are all officers of Engineers; or in the case of Hydrography, Naval Officers: Military Men, of great experience, bound by the sacred ties of Military allegiance to their corps, and country. In whose fidelity, I ask, could the Government confide so safely, as that of such individuals? To their safe custody and prudence the documents are entrusted when prepared, as to their scientific acquirements, their zeal, and esprit de corps, the first preparation of the materials and the composition. In every single instance that I have here enumerated, the engraving is also committed as a no less sacred, I will even style it, a far more sacred trust, than any other. They are held responsible for the completion; they vouch for the authenticity of such documents by affixing the official stamp of their respective governments, as they pass through the press, and which cannot be effaced or removed without destroying the plans. The effect of such a system is to cheapen the work beyond belief; to permit of alterations and improvements, from time to time, as they may be desirable or necessary, yet they are not less free to the public.

In the Ordnance Survey, Col. Colby has introduced a curious process, which is peculiarly fitted to ensure a high degree of ac-

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curacy. The Principal Triangles being laid down, and their distances on the meridian and perpendicular being computed and set off, on a large diagram, a certain number of minor points established by the secondary Triangulation are determined, and fixed, in like manner, within the boundary of each parish or township ; and the four points on the corners of each compartment for the respective sheets of the country Surveys, ascertained in like manner. These are then, at once, laid down on the copper, and the detached parish Surveys transferred to those fixed points ; so that the edges of all the sheets fit exactly to each other when printed, and are not affected by the unequal contraction or expansion of the paper, which is the case in all ordinary maps ; this, and many other improvements are, I believe, exclusively due to Colonel Colby ; whose originality of mind has conferred a public benefit on this branch of the Service. Some men, as Mr. Babbage observed to me, have the talent of organizing matter, some of organizing mind ; and this last, he considered to be Colby's fort. I would not be thought to disparage, or overlook the merit of others : of Colonel Pasley, who first instituted this admirable system of instruction ; of Lieut. Drummond, Col. Reid, and other officers : but I think it a matter of regret, and it will be of reproach to us, if the Corps in India, does not do its best endeavour to compete with that in Her Majesty's Service. We have had many highly distinguished in the field, Anburey, Warlowe, Davis, Nattes, Purton, Lake, Johnson, Remon, and G. Jervis. We have had others equally ingenious as Civil Engineers, Forbes, Hawkins, Hutchinson, De Havilland, Blane, Mc. Gillivray, Cotton, and W. Cowper ; as Architects we have Kyd, Robins, T. Cowper, Russell, and Waddington, and a host of others. Our Geographers were Rennel, Reuben Burrowes, Mackenzie, and many whose names I have already enumerated. It were strange indeed, if in any requisite, that were essential to the management or engraving of the most extensive Survey in the world, we, only, should be found deficient : and I know of no drawback to this, but the preponderating influence of those, who either do not see so far as we do, into the true interests and wants of India, or who lean to their own, from an apprehension that the delegation of such duties will detract from their own consequence, or in any way operate to their prejudice. For myself I think it never can, and I find the first artists ridicule the idea, that engraving cannot be carried on as well, or even better, in India, than here, when we call to mind, that the finest engravings in the world have been produced in Italy, under as bright a sky, and as high a temperature.

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Whatever may be the intentions of the British Government with respect to the amelioration of India, and it cannot be doubted that they are, on the main, of a liberal and wise nature; no improvements in the construction of roads, canals, embankments, public edifices, in short, any thing calculated to draw out and improve the resources of the country, can possibly be undertaken, or even made intelligible, without a very exact survey on a large scale, nor without the publicity and widest circulation of such survey. A very great progress has been made in the scientific net-work, on which to ground such survey; and with the aids, placed at my disposal,—upon the *full* adoption of the suggestions which I have submitted to the Home authorities, and those which have likewise been made by the scientific men in this country, who can have no prejudice, or leaning of any sort, to any particular individual, system or object, I believe the Topographical Survey of British India might be brought to a close in about seven years;—accompanied with very complete, and useful, illustrative memoirs, for which there are even now a large quantity of materials available. To accomplish this, however, one and all of those experienced persons whom I have consulted, consider the confidenee of the Government as indispensable to success, as the entire, and sole, conduct of the compilation, and engraving, to the final accuracy.

Conversing some time back with a gentleman of the civil service, of acknowledged ability and experience, he observed, "After thirty-eight years residence in India, I confess we know comparatively nothing of the country, and still less of the native character and institutions." Nor was he singular in this opinion,—Sir Thomas Munro, adverting to the great question of improving the condition of that Empire, thus succinctly points out the necessity and the advantage of a comprehensive and accurate revenue survey,—"An Agricultural Survey of the country should be made, in order the better to ascertain its resources, and to establish a fixed and moderate assessment: I am satisfied that this measure alone would be more effectual than all other measures combined, in promoting the improvement of the country, and of the people. But before we can lower the land revenue, to the best advantage, we ought to know clearly what it is we are giving up. The information requisite for this purpose can only be obtained from *an accurate survey of each province*.—Our great error in this country, during a long course of years, has been too much precipitation in attempting to better the condition of the people, with hardly any knowledge of the means by

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which it was to be accomplished; and, indeed, without seeming to think that any other than good intentions were necessary. It is a dangerous system of government, in a country of which our knowledge is very imperfect, to be constantly urged by the desire of settling every thing permanently: to do every thing in a hurry, and in consequence, wrong; and in our zeal for permanency, to put the remedy out of our reach."

We hear of famines, of insurrections, of superstitious and barbarous rites: and are surprised that they should find any place under the milder exercise of the British sway. To obviate, or alleviate, these evils there is one plain course before us, to know more of the country and of the people;—improving that knowledge to their benefit, and to our own honor. This will engender attachment, though in a conquered country; this will confer stability, though that acquaintance supersede the terror of the sword. If it were all well with India and ourselves; if additional wealth flowed in upon every fresh accession of territory; if every enlargement of our frontiers brought us in contact with new tribes, ready to acquiesce in our supremacy, to welcome us with open arms; we might administer the sovereignty without distraction or anxiety: but if the neglect of every precaution, the disregard of every improvement, entails a corresponding embarrassment on the colony, and on the mother-country; if it weakens our hold on the opinion of the natives, and detracts from the reputation and interests of the state; we may hereafter revert with shame to that long interval of peace, when so much might have been accomplished, to acquire knowledge, to ensure co-operation,—to repel aggression, and to establish a durable and solid memorial of a peaceable and provident Government. I am quite sure that the first effectual advance towards this happy consummation of good Government, is to look narrowly into the extent, capabilities, and resources of that country; an accurate survey, conducted on the principles I have so fully explained, affords a satisfactory key to the former; good memoirs furnish whatever else is desirable: nothing is now wanting to this measure, as regards India, but the concurrence of the Home authorities. They have every information before them, and officers ready to give effect to their orders. I should be very slow to counsel such measure on my own judgment, or the little experience I may be supposed to have:—yet I confess I feel some interest in the fortunes of a country where I, and my father, and my children, drew our first breath; where so many members of my family have passed their lives for

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upwards of a century, associated with a great variety of persons in every walk of life, whose excellent qualities would have done honor to any country.

From what I have stated, you will perceive it is not without reason, or experience, that I have contended for the necessity of many and great improvements in India,—and I do so, both as a friend to science, and an enthusiast in the cultivation of it ; yet still more so, as I am responsible to my country, and profession, for the upright and due discharge of my duty. Economy is the nerve of science, and the public service : he who is prodigal of his time, or his energies, is as great a spendthrift as he who is prodigal of other possessions. I strongly plead, therefore, for the best description of materials we can get,—the best machinery,—and the best workmanship. If surveys are undertaken by authority from Governmen. they should invariably be accompanied by a memoir, explanatory of their construction ;—and such other descriptive memoirs, as the time and talent of the individuals employed, may admit of; that is, Geological, Descriptive, and Statistical Memoirs. I would insist on the parties being fully qualified for such undertakings, and that it should be optional with the Government to publish all the results of their Surveys :—otherwise, I would leave the parties free to publish for their own benefit, at their own charge. I would leave it exclusively with the Directors of such undertakings to recommend the parties for such service,—to select their instruments, form their plans ; entrusting them with full powers to arrange, as to the orthography, system, expression, scale, engraving, and, in fine, all other minor details ; a course which would ensure, what has been always felt as the greatest desideratum in Geography, —a uniform and intelligible view of the surface, divisions, physical character, and statistical aspect of countries, widely removed, probably, in many respects also, very dissimilar to each other. We should then do for this neglected science, what the Royal Geographical Society was especially contemplated to accomplish, a very great and most honorable public service to our own country, and to the world at large.

T. B. JERVIS.

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